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United States
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Forest Service

Tongass National Forest

R10-MB-442

May 2002



Helicopter Landing Tours on the Juneau Icefield 2003 - 2007

Final Environmental Impact Statement



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Tongass National Forest
Juneau Ranger District

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File Code: 1950
Date: April 16, 2002

Dear Reviewer:

Enclosed is your copy of the Record of Decision (ROD) and the Final Environmental Impact Statement (FEIS) for Helicopter Landing Tours on the Juneau Icefield 2003 - 2007. The FEIS describes the Proposed Action, the No-Action Alternative, and six action alternatives ranging from a 38 percent reduction in the number of landings authorized over 5 years (from 19,039 to 11,881 annually) to a 61 percent increase in the number of landings authorized over 5 years (from 19,039 to 30,662 annually). Some of the alternatives include additional landing locations. The ROD describes the Selected Alternative, which is Alternative H in the FEIS. Under the Selected Alternative, the number of landings authorized could increase approximately 16 percent over 5 years, from 19,039 in 2003 to 22,040 by 2007.

Please keep in mind that additional environmental analysis may be required if the City and Borough of Juneau determines that one or more satellite heliport sites should be used to reduce helicopter flightseeing noise impacts. Such an analysis would include a review and consideration of new information or changed circumstances relative to the environmental impacts of the helicopter icefield landing tours.

As the District Ranger, I am the official responsible for authorizing the requested special use permits. The decision I must make is whether or not to issue special use permits for helicopter landing tours on the Juneau Icefield and, if issued, authorize locations, levels of use, and types of activities covered under the permit(s). I also determine any mitigating measures that will be required.

Sincerely,

PETE GRIFFIN
District Ranger



RECORD OF DECISION

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Record of Decision

USDA FOREST SERVICE

Helicopter Landing Tours on the Juneau Icefield 2003-2007

Juneau Ranger District Tongass National Forest

This RECORD OF DECISION documents my decision concerning whether or not to issue special use permits that authorize TEMSCO Helicopters, Inc.; Coastal Helicopters, Inc.; Era Helicopters, Inc.; and NorthStar Trekking, Inc. to conduct helicopter landing tours on the Juneau Icefield within the Juneau Ranger District through 2007. This decision is based upon the analysis and evaluation of the Helicopter Landing Tours on the Juneau Icefield 2003-2007 Final Environmental Impact Statement (FEIS).

Background

The purpose and need for this project are to meet public demand for quality outfitter-guided services that provide safe helicopter access to remote locations on the Juneau Icefield. Meeting this demand includes providing for visitor safety and an appropriate balance between commercial, guided recreation opportunities and noncommercial, nonguided recreation opportunities while minimizing impacts to people and resources.

The Forest Service Selected Alternative will be used in the development of the special use permit authorizations.

Decision

Based on the analysis and evaluation in the FEIS for the Helicopter Landing Tours on the Juneau Icefield 2003-2007, it is my decision to select the Forest Service Preferred Alternative H. The Selected Alternative would authorize landings in existing operating areas and Death Valley. No other new locations would be authorized. Allocations of landings to companies for 2003 and 2004 would be similar to 2002 allocations. A Prospectus and Bid system would be used to make allocations for 2003 through 2007.

In addition to determining the number of landings to be permitted each year through 2007, this decision encompasses the following elements:

- The length of season during which landings on the icefield may occur
- The days of the week during which landings may occur
- The hours of the days during which landings may occur
- The areas of the icefield where landings may occur
- The areas of the icefield where enclaves may be developed
- Helicopter clearance distances from observed wildlife and wildlife habitat

Record of Decision

- Whether and where no-landing zones will be established at trail ends
- Whether snow machine use will be authorized on the icefield in conjunction with landing tours

The Forest Service is not directly regulating helicopter flight paths, altitudes, or noise over residential areas because those issues are more within the jurisdiction of the Federal Aviation Administration (FAA). The Forest Service has asked the applicants for information about their flight paths and altitudes and has used that information to evaluate the likely environmental effects of noise to residents, recreation users, and wildlife in the EIS and to make this decision. If the environmental impacts differ significantly from those evaluated in the EIS, then this decision may be revisited to address unanticipated environmental effects. This ROD does expect that flight paths and altitudes will vary by weather conditions to maintain safe flying conditions.

This ROD is a decision to issue permits for 5 years beginning in 2003. It will be reviewed in 5 years (sooner if warranted) at which time the Forest Service will consider any new information from monitoring of wildlife, recreation areas, and operators. A new EIS may or may not be necessary before another decision is issued, depending on what has significantly changed since the 2002 EIS.

Table 1. Features of the Selected Alternative

Feature	Selected Alternative
Number of landings 2003	19,039
Number of landings 2004	19,039
Number of landings 2005	5% increase from number authorized in prior year (19,991)
Number of landings 2006	5% increase from number authorized in prior year (20,990)
Number of landings 2007	5% increase from number authorized in prior year (22,040)
Days per week	Same as now – 7
Days per season	153 probable, but not limited
Average # of landings per day by 2007	Likely operations May 1 – Sept 30 151
Landing locations	As shown on map; same as now with addition of Death Valley
Flight paths	Determined by FAA, City and Borough of Juneau (CBJ), and operators. Probable routes shown on Figure 1, Selected Alternative
Distance from wildlife	Same as now – 1,500 feet
Trail end buffers	None
Motorized snow vehicle tours	None authorized
Expanded area north to Haines/Juneau Borough line	No
Eagle Glacier landings	No
Death Valley landings	Yes (but no enclaves)
Antler Glacier Lake landings	No
Forest Plan consistency	Yes

- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin

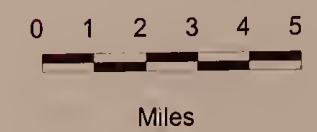


Figure 1
Selected Alternative
Juneau, Alaska

- Borough Boundary
- Probable Flight Routes
- Authorized Landing Sites
- Authorized Minor Developments
- ▲ Juneau Icefield Research Camps
- ▲ Cabins - FS and State
- ... Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary

Contour Interval 200 feet

Scale 1:300,000





1. Under the Selected Alternative, the number of authorized landings would remain at 19,039 in 2003 and 2004. In 2005, 2006, and 2007, the number of authorized landings would increase 5 percent over the previous year.

Safety is one of the primary issues facing the Forest Service and we are concerned about the serious accidents and fatalities that have occurred in helicopter flightseeing operations. We encourage the current efforts of the FAA (which has jurisdiction over flight safety) and the helicopter operators to constantly improve safety and cooperate in assessing weather conditions. The Selected Alternative gives pilots flexibility to address safety concerns at landing sites. We would be very receptive to suggestions to improve visitor safety.

2. I have decided to authorize landings from 8:30 a.m. to 8:00 p.m., 7 days per week, the same as currently authorized. These hours of operation are a balance between avoiding sleeping hours for residents and accommodating the limited scheduling availability of cruise ship passengers, who constitute the vast majority of helicopter landing tour participants, and who might otherwise be denied the opportunity to access these unique National Forest System lands.
3. I have decided to continue the current recommendation that helicopters maintain a 1,500-foot vertical and horizontal distance from traditional mountain goat summer and kidding habitat, and from observed animals, consistent with the Forest Plan. Though not necessarily required by the Forest Plan, I am also deciding to apply the 1,500-foot clearance to observed black and brown bears, wolves, moose, trumpeter swans, Steller sea lions, humpback whales, harbor seals, and other marine mammals. If low visibility ceilings or other safety concerns make the 1,500-foot separation infeasible, then helicopters should maintain the furthest safe distance.

A 1-mile buffer will be established between helicopter landing sites and important mountain goat kidding areas from May 15 to June 15 each year, where feasible. All new sites for landing tours would have a strict 1-mile-buffer mitigating measure applied to the mountain goat kidding habitat from May 15 to June 15. At historically used sites on Norris, Mendenhall, Herbert, and Gilkey glaciers, if the 1-mile or greater distance cannot be feasibly achieved, a minimum 1,500-foot buffer will be maintained. If landings occur within the 1-mile buffer, additional mitigation measures to be followed include approaching landing sites from near the center of the glacier (as far from goats and kidding habitat as possible, while maintaining safe transit guidelines), and approaching landing sites below the elevation of goats, if terrain and weather allow. If landings occur within the 1-mile buffer, monitoring will help determine if long-term habitat productivity and viability of mountain goat populations is being maintained, and if additional mitigation measures are warranted.

4. I have decided not to include trail end buffers in the Selected Alternative because of concerns about safety and a desire to have flexibility in dealing with visitor use conflicts. I realize that visitors who have hiked to the end of a trail would prefer to not encounter helicopters and a group of visitors brought by helicopters. On the other hand, visitors who need to take a helicopter to get to the glacier may not be able to safely land anywhere else in the vicinity, especially early in the season when conditions are not safe to land higher up the glacier. I believe the conflicts between users at trail heads can be kept controlled to times when there are no other safe landing areas in the vicinity. I will consider proposals to minimize this conflict in the Prospectus and Bid process.
5. I have decided not to authorize motorized snow vehicle tours on the Juneau Icefield. Enclaves required for motorized snow vehicle camps would not be appropriate in the Remote Recreation Land Use Designation (LUD) in any case. In the Semi-Remote Recreation LUD, it is my decision that the incremental noise and activity associated

Record of Decision

with snow vehicle use would be incompatible with the existing recreational uses of the area.

6. The physical effects of the helicopter landing tours on the icefield are negligible. Nonetheless, there are some impacts to wildlife and to certain types of recreational use. I have decided to keep the area affected by helicopter landing tours limited to the existing areas used and one additional area, Death Valley, so that a large area of the icefield will remain unaffected. The Selected Alternative will allow landings in Death Valley, but because it is zoned as a Remote Recreation LUD, enclave development will not be allowed. Figure 1 shows the landing and enclave areas authorized in the Selected Alternative. Figure 2 shows the landing and enclave areas in the context of the LUDs and associated Recreation Opportunity Spectrum (ROS).
7. The proposed combination fixed-wing and helicopter landing tour to Antler Glacier Lake and Antler Glacier is not included in the Selected Alternative. The landing at Antler Glacier Lake would not meet the minimum wildlife clearance requirements (1,500 feet) identified in the Forest Plan.
8. Included in the Selected Alternative is my decision to adopt the mitigation measures and conditions identified in the FEIS as common to all action alternatives. This includes mitigation measures for safety, wildlife, recreation, and the Juneau Icefield Research Program (see FEIS page 2-20).
9. The Selected Alternative includes my decision regarding the appropriate number of landings and visitors allowed at various LUDs and the types of site development on the icefield. This decision establishes a management system using the following guidelines:
 - The primary limiting factor is the number of helicopter landings.
 - One helicopter is considered to hold up to six visitors (not counting the pilot/guide).
 - One helicopter or six visitors is counted as one group encounter.
 - Pilots and guides are not counted in the total number of visitors or people allowed on site.
 - Aircraft overflights are not considered an encounter. (This is not to deny that an aircraft overflight is noticed, but rather the term is defined this way to allow the establishment of a feasible management system.)
 - The traditional means of access for tourism on the Juneau Icefield is by helicopter. All the affected LUDs allow such helicopter access.

Maximum Landings Allowed by LUD and Type of Site

Table 2 establishes, for the Juneau Icefield, the maximum number of helicopter landings and people allowed at various LUDs and types of sites. As noted in the footnote to the table, these maximums are as restrictive or more restrictive than Forest Plan guidelines.

LUDs indicate different management prescriptions that direct us to manage for particular and different recreation opportunities in a range of ROSs, ranging from Primitive to Urban. The FEIS for this action has no alternatives that conflict with the prescribed ROS for any LUD. All activities authorized in this ROD are in compliance with the Forest Plan.

Table 2. Maximum Recreation and Tourism Development Allowed by LUD

LUD	Minimum distance (or physical barrier) to another authorized activity per site	Maximum number of helicopter landings and people allowed per site per day	Maximum number of helicopter landings and people allowed per site at one time	Acceptable ROS experience	Maximum allowed group encounters per day
Remote Recreation	3-mile minimum distance between occupied sites	10 landings/day 60 people/day	3 helicopters at one time; 18 people at one time.	Primitive	2 groups. No more than 3 groups in a day.
Semi-Remote Recreation	0.5-mile minimum distance between occupied sites.	10 landings/day 60 people/day	10 helicopters at one time; 60 people at one time.	Semi-Primitive Motorized	9 groups. No more than 10 groups in a day.
Semi-Remote Recreation with Enclave(s)	0.5-mile minimum distance between occupied enclave sites.	100 landings/day 600 people/day	20 helicopters at one time; ¹ 120 people at one time. ¹	Roaded Natural ¹	19 groups. ¹ No more than 20 groups (of up to 6 people) per day may use the site. ¹

¹ Based on the assumptions listed above and Forest Plan standards and guidelines, there could be up to 100 helicopter landings at one time (up to 600 people at one time) at an enclave site. This ROD establishes a more primitive ROS at enclave sites than the Forest Plan allows, and thus fewer numbers of helicopters and people are allowed at one time at the enclave sites. These parameters are more restrictive than Forest Plan guidelines.

The minor developments (for example, enclaves, such as dogsled mushing camps) do not exceed the number of landings, encounters, and people at one time per site per day as identified in the Forest Plan standards and guidelines for the LUDs and their corresponding ROS. This ROD establishes a more restrictive element at enclave sites that limits landings and people allowed at one time (20 helicopters, 120 people) to a level lower than what the Forest Plan standards and guidelines allow (100 helicopters, 600 people).

Helicopter landing tour sites in LUD Remote Recreation/ROS Primitive must be a minimum of 3 miles away from any other landing use sites. Occupancy of any site is a key factor here, such that a helicopter landing tour (with up to 3 helicopters and 18 people) may occur at a given site, and once vacated, another helicopter landing activity can take place at, or near (within 3 miles of) the site, as long as there are no more than 3 helicopters and no more than 18 people within site or sound of each other at any one time. Further, there may be no more than a total of 10 landings and 60 people per day at any one landing site (3-mile radius). This meets the objectives of LUD Remote Recreation and setting indicators for ROS Primitive (Forest Plan 3-63, 4-46).

Helicopter landing tour sites in LUD Semi-Remote Recreation/ROS Semi-Primitive must be a minimum of one-half mile away from any other landing use sites. Occupancy of any site is a key factor here, such that a helicopter landing tour (with up to 10 helicopters and 60 people) may occur at a given site, and once vacated, another helicopter landing activity can take place at, or near (within one-half mile of) the site, as long as there are no more than 10 helicopters and no more than 60 people within site or sound of each other at any one time. Further, there may be no more than a total of 10 landings and 60 people per day at any one landing site (one-half-mile radius).

Record of Decision

This meets the objectives of LUD Semi-Remote Recreation and setting indicators for ROS Semi-Primitive (Forest Plan 3-83, 4-48).

Helicopter landing tour sites in LUD Semi-Remote Recreation at an identified enclave site (shown on Figure 2) may cause the ROS to become Rural. The Standards and Guidelines for ROS Class Rural indicate that remoteness is of little importance, and moderate to high concentrations of people and sights and sounds of human activity are acceptable when not continuous. The setting is located within one-half mile of areas that receive heavy aircraft travel. The permitted operators have established a distance between the Mendenhall enclave sites that is greater than the prescribed minimum of one-half mile apart, and/or there are physical barriers that separate the sight and sound of one authorized activity from another. Although not required to, the helicopter landing tour operators have chosen (and are likely to continue) to use enclave sites at least one mile from another landing site to preserve the sense of remoteness, as well as for safe helicopter flight and landing purposes. This meets the objectives of LUD Semi-Remote Recreation, where occasional enclaves of concentrated recreation and tourism developments may cause the ROS to become Rural. The more restrictive limitations set in this ROD cause the ROS setting to be closer to Roaded Natural by allowing fewer landings and people at one time at the enclave sites (Forest Plan 3-83, 4-49, 4-51).

Minor Developments

- Minor developments can occur in any of the proposed landing sites shown on the ROD map in both LUD Remote Recreation and LUD Semi-Remote Recreation, as long as they meet the prescribed ROS setting indicators for each LUD.
- Minor developments are likely to include the placement of temporary, primitive, rustic facilities on site for the summer or a portion thereof, with virtually no or minor site modification. Site modification may involve a dug snow-pit for food storage/refrigeration.
- Site reclamation involves simple removal of facilities; the natural appearance of the site can be attained in less than one year.
- Evidence of the dogsled mushing activities, for example, involves patterns in the melted snow/ice surface below the removed temporary facilities and dogsled mushing trails.
- Minor developments may involve small rustic facilities with a single purpose or service, and may involve several sites or an extensive area. Basic essentials are typically provided. Examples of minor developments include, but are not limited to, temporary, portable shelters for the purposes of safety in poor weather conditions; housing for on-site outfitter guides; sanitary facilities (contained outhouses); outfitting clients for the activity on site; gear storage; and conducting activities, such as dogsled mushing or glacier hiking and trekking. These facilities will be designed to blend in with the white, natural environment (Forest Plan 4-38, 4-39, 4-40).
- The placement of any temporary facilities or structures in any LUD causes the site to become a "reserved site," which requires the permittee to pay an additional site use fee (Year 2001 reserved site fee was \$155.00). This prohibits any other permittee from using the site for the season, as long as the facility is there. All commercial outfitter guide facilities on the Juneau Icefield must be removed at the end of the season.

Minor Developments in LUD Remote Recreation

The following conditions apply to minor developments in LUD Remote Recreation:

- Limited to a maximum of 3 helicopter landings and 18 people at one time.
- Must be a minimum of 3 miles from any other helicopter landing tour site.
- Limited to a maximum of 10 helicopter landings per site, per day.
- Would most likely involve the temporary placement of a portable weather port for client comfort and convenience.

Minor Developments in LUD Semi-Remote Recreation

The following conditions apply to minor developments in LUD Semi-Remote Recreation:

- Can be at any landing site identified on Figure 2 in LUD Semi-Remote Recreation.
- All minor development helicopter landing sites in LUD Semi-Remote Recreation are limited to a maximum of 20 helicopter landings and 120 people at any one time, and up to 100 helicopter landings and 600 people per day.
- 15 landing sites are designated as enclave sites.
- Sites must be a minimum of one-half mile from any other helicopter landing tour activity site.
- Sites would most likely involve one or several weather ports, temporary housing facilities for 2 to 12 outfitter guide employees stationed on site daily or for multiple days, dogsled mushing camp facilities and trails, hiking and trekking routes, and gear storage tents.

Enclaves

- Enclaves can occur only in LUD Semi-Remote Recreation (not in LUD Remote Recreation) (see Figure 2).
- Enclaves allowed under this ROD are temporary in nature and are all considered minor developments because of their temporary nature. The only characteristic of an enclave development that places it in the category of a major development is the higher number of users at enclave sites in LUD Semi-Remote Recreation; however, because of the more restrictive limitations set in the EIS (more restrictive than Forest Plan standards and guidelines), we consider enclaves as minor developments. Because they are allowed only in LUD Semi-Remote Recreation, they are consistent with the Forest Plan standards and guidelines.
- Enclave sites could have up to 20 helicopter landings and 120 people at one time, and up to 100 landings and 600 people per day. The actual numbers expected are, however, more likely to be in the range of 3 to 6 helicopter landings and 18 to 36 people at one time, and 60 helicopter landings and 200 people per day.
- Enclaves can cause the ROS to become Roaded Natural, where the user should expect to have a maximum of 19 group encounters in the area. The Forest Plan allows ROS Rural, where the user could expect to meet more than 20 groups in the area. This ROD is more restrictive than the standards and guidelines in the Forest Plan.
- 15 authorized enclave development sites are identified on Figure 2.

Record of Decision

The 15 authorized enclave sites in LUD Semi-Remote Recreation include the following (see Figure 2):

Site 1 – Mendenhall lower east site. TEMSCO has traditionally conducted the majority of its landing tours here in the early part of the season. A weather port is stationed at the site for the operations. Outfitter guides (commonly known as “glacier guides”) may be stationed there daily to meet, greet, and educate clients. Clients arrive in groups of one to six helicopters, with up to six people in each helicopter, and are dropped off for an interpretive, exploratory tour, while previous clients are transported back to the helibase. As the season progresses, and ice/snow conditions change, this operation moves up to Site 2, on the east side of Mendenhall Glacier. Because of the large number of landings each day (up to 100 allowed), this site is a designated enclave site.

Site 2 – Mendenhall upper east site. TEMSCO has traditionally conducted the majority of their landing tours here in the later part of the season. The weather port is moved up to this site and operations continue as they did at Site 1. Because of the large number of landings each day (up to 100 allowed), this site is a designated enclave site.

Site 3 – Mendenhall lower west site. NorthStar Trekking has traditionally conducted the majority of their trekking tours out of this site in the early part of the season. A weather port is stationed here for the operations and is left on site for many days. Glacier trekking guides are stationed at this site for the day. Typically one to three helicopters land and drop off 4 to 18 clients for a trekking activity. Previous clients are picked up for transport back to the helibase at that time; therefore, there is often a possible 36 clients at this site at any one time. We could expect to have groups of one to three helicopters at one time, with more than 10 landings on one day at this site. Due to the possibility of more than 10 helicopter landings at this site each day (up to 100 allowed), this is a designated enclave site.

Site 4 – Mendenhall upper west site. NorthStar Trekking has traditionally conducted the majority of their trekking tours out of this site in the later part of the season. Due to the possibility of more than 10 helicopter landings at this site each day (up to 100 allowed), this is a designated enclave site.

Site 5 – Mendenhall/Herbert Saddle. This has historically been occupied for dogsled mushing tours conducted by Alaska Icefield Expeditions, Inc., in partnership with TEMSCO. The location has varied by 1 mile during the 2 years it was occupied due to the changing glacier surface conditions. The relatively flat terrain and stable snow surface conditions have accommodated the dogsled mushing operations for a viable season. Normally, three to four helicopters could land at this site with 18 to 24 clients participating in the dogsled mushing tour at one time. Due to the possibility of more than 10 helicopter landings at this site each day (up to 100 allowed), this is a designated enclave site.

Site 6 – Middle Branch Norris. This site has historically been occupied for dogsled mushing tours by Era Helicopters in partnership with Nunatak Kennels, Inc., (1997-1998) and Dawn Breaker Kennels, Inc., (1999-2001). The location has varied year to year, with minor location moves of 100 feet to one-half mile throughout the season. Normally, three to four helicopters could land at this site with 18 to 24 clients participating in the dogsled mushing tour at one time. Because of the large number of landings each day (up to 100 allowed), this site is a designated enclave site.

Sites 7 to 15. The Forest Service has received requests from prospective permittees for enclave site development at eight additional locations (see Figure 2). These sites

have not been used for enclave developments to date, but they could be used if authorized in a special use permit.

It is expected that there would be three or four authorized enclave sites each year, and in operation at the same time. The locations likely to be used for these activities are the identified enclave sites on the lower half of Mendenhall Glacier for large group hiking and trekking tours (12 to 36 clients at one time), and Middle Branch Norris Glacier for dogsled mushing tours, as described above. Other enclave sites shown on Figure 2 may be used if necessary; however, the historically used sites have proven to be the most suitable for meeting the needs of industry. It is conceivable that the locations of any of the 15 identified enclave sites could shift somewhat (one-half mile +/-) because of changing glacier surface conditions and safety reasons, but the areas shown on Figure 2 are the best general vicinity in which they could occur.

High Use Areas

The high use areas where a significant portion of helicopter landing tours could take place are on the lower portions of Mendenhall Glacier, Herbert Glacier, Norris Glacier, and Taku Glacier. These areas are the first areas to become suitable for helicopter landing tours in the early summer when the unstable winter snow begins to melt, exposing more solid packed snow and ice and providing safe, stable landing surfaces. These landing tours could involve groups of one to six helicopters each in the early part of the season. It is conceivable and within the FEIS/ROD limitations that there could be up to 20 helicopters at one time on the lower portion of these glaciers, in groups of 1 to 6, one-half mile or more apart. There have been approximately 35 helicopters historically available in Juneau for the Juneau Icefield landing tours, however, it is unlikely that more than half of them would be on one glacier at one time, and there have been no observations or reports indicating otherwise. It is expected that there could be from one to four groups of one to six helicopters on the lower Herbert, Mendenhall, Norris, or Taku glaciers at one time, and this would be well within the limitations of the Forest Plan and this ROD.

The changing and often unpredictable glacier surface conditions make some areas unsafe to land helicopters on at different times throughout the season. Early in the season, landings often occur at the lower elevations because deep snow at the higher locations prohibits safe landing and glacier exploration activities. As the summer progresses and snow melts further up the glaciers, many of the higher elevation areas become usable for landing activities. Glaciers on which this scenario typically occurs are: Herbert, Mendenhall, Norris, and Taku. Helicopter landing activities, such as glacier trekking, hiking, or walking, do not require the soft snow surface for feasible operations, but do require a stable glacier surface for helicopter landings to occur and enough adjacent flat terrain for clients to safely enter and exit the helicopter. Dogsled mushing operations require relatively flat, stable snow surface conditions for the dogsled mushing trails in addition to firm surfaces for helicopter landings, as found on the upper Mendenhall Glacier and Middle Branch Norris Glacier where these activities have historically been authorized.

When considering any of the landing sites shown on Figure 2, it is unrealistic that all could be used at one time. All helicopter landing sites identified on the ROD map are a compilation of historically and newly authorized landing sites. In addition to the limitations for numbers of helicopters and people at one landing site at one time, and the daily limitations, the actual use of any landing site depends on snow/ice surface conditions, daily and seasonal weather conditions, and the number of clients available and willing to pay for a helicopter landing tour on the Juneau Icefield.

Record of Decision

The majority of overflights associated with the authorized landings occur over LUD Semi-Remote Recreation, where the Forest Plan allows the ROS to become Rural. Specific ROS for this LUD has setting indicators where the “setting is located within ½ mile of heavily traveled roads and state highways or areas that receive heavy aircraft travel.” The FEIS associated with this action establishes a more primitive ROS environment than the Rural ROS indicates, that being “Roaded Natural,” where the “setting is located within ½ mile (greater or less depending on terrain and vegetation but no less than ¼ mile) of moderate to heavily traveled waterways and/or roads ... and open for use by the public or those areas that receive heavy small aircraft travel.” (See Forest Plan Standards and Guidelines for ROS Class Roaded Natural and ROS Class Rural, pages 4-49 and 4-51, respectively.)

Rationale for the Decision

The Juneau Icefield is a national treasure. Visitors to the icefield can feel they are experiencing ancient ice ages or traveling through the Arctic region, and watch the mountains being carved by vast glaciers flowing slowly out of the icefield. Some visitors to the icefield experience winter activities, such as dogsledding, in the middle of the summer. This spectacular treasure is only now being discovered by large scale tourism. The recent growth in cruise ship passengers seeking to experience Alaska has brought more than half a million people to Juneau, only a few miles from what many visitors consider to be an incredible Alaska experience. More than 89,000 visitors annually pay a significant amount of money for a helicopter ride to the icefield—and are very happy they did. Even more visitors are willing to pay for such an experience but are unable to get a seat in the short time they are in Juneau.

The growth in visitors has brought tourism revenue and jobs to Juneau, but has also brought unwanted noise from aircraft that particularly affect Juneau residents near helicopter flight paths. The issues surrounding tourism and flightseeing have been extensively debated in the community and have been part of campaigns for public office, ballot initiatives, and city planning and debates about the future of Juneau. Many citizens of Juneau have different views and they have sincerely worked to advocate their views. The city government and the Forest Service have extensively worked toward solutions by holding public meetings, sponsoring professional mediation, studying impacts, and creating alternative solutions to some of the problems. One of the primary strategies developed by the CBJ is to move heliports so that flightpaths affect far fewer residents. One of the major obstacles to moving heliports is the cost.

As a federal agency, the responsibility of the Forest Service is to the citizens of the United States, including the views of Juneau residents and those who travel to Alaska. The Forest Service does not make decisions based solely upon the number of public comments received for each side, nor whether one alternative benefits more people than another. Rather, the Forest Service applies its legal direction from Congress, considers the scientific knowledge, listens to the public, and draws upon its natural resource management expertise to manage the public land for the greatest benefit in the long run.

We are fortunate that this popular activity has an almost negligible impact on the physical environment in the National Forests. If that were the only consideration, then I would be willing to substantially increase the authorized landings to provide more opportunities for visitors to experience the icefield. But I also have heard about the effects on residents, especially about the noise under the flight paths. I wish there were an alternative that would alleviate all the noise problems and still provide visitors the opportunity to experience the icefield and provide economic benefits for Juneau. But there is no such alternative, despite great efforts to find it. So my decision is a compromise that neither provides all the landings that are desired nor eliminates all the noise problems.

My strategy is to provide for an increase in landings over time to provide the increasing number of visitors with opportunities to experience the icefield, and provide increased economic activity in Juneau. The increase will be gradual to provide predictable, consistent growth and to avoid a sudden increase in impacts. In addition, the strategy is to provide strong incentives for a reduction in noise conflicts. My strategy is to encourage operators to undertake the cost of moving their heliports by rewarding operations that reduce noise conflicts with the opportunity for increased landing authorizations. It is not feasible to directly tie every change in landing authorization to a specific reduction in noise conflicts, but operations that reduce noise conflicts over time will have significant advantages in discretionary allocations because their operations will have less overall impact. My goal is that 5 years from now, we will have more visitors experiencing the icefield with far less impact to Juneau residents.

The Selected Alternative was chosen because it best meets the purpose and need and addresses the issues identified during scoping and comments received concerning the DEIS.

1. In making my decision, I considered the many issues raised during the development and scoping of this project, incorporated Forest Plan and Record of Decision standards and guidelines relevant to the project area, and took into account competing interests and values of the public. Many divergent public opinions were expressed during the analysis. These comments have helped me make a better informed decision. I have considered all views that have been expressed and have used contributions by the public, where feasible and consistent with the purpose and need of the project.
2. The Selected Alternative provides a beneficial mix of resources for the public within the framework of the existing laws, regulations, policies, public needs and desires, and capabilities of the land, while meeting the stated purpose and need for this project. This decision is one suited to this project area at this time. While some alternatives might better address certain issues, the Selected Alternative provides the best mix for addressing them at an acceptable level.
3. The sound studies conducted to measure the effects of helicopter noise from helicopter traffic to the Juneau Icefield determined that sound levels from helicopter noise were not high enough, nor of long enough duration, to pose a threat to hearing safety for either humans or animals. The sound studies concluded that the acoustic impact to humans from helicopter sounds is primarily annoyance to people who reside or recreate in areas close to the helicopter flight paths, as well as some sleep interruption and communication interference. While we quantified the noise level and the physical effects, we recognize that controversy still exists over the social effects from the sound generated by the helicopters. I recognize that any increase in helicopter traffic may increase the percent of the population highly annoyed by helicopter noise.
4. I have chosen Alternative H as the Selected Alternative partly because of the uncertainty regarding the long-term social impacts of steadily increasing helicopter activity on the human environment outside the jurisdiction of the Forest Service. Clearly, the annoyance of local residents will increase as the number of helicopter flights increases. The CBJ indicates an awareness of this controversy and the need to address the issue by identifying new heliport locations or through other means.

I have decided to authorize only a moderate increase in the helicopter landing tours from 2005 through 2007. Once the CBJ determines the appropriate measures to address the helicopter noise issue, including the construction of one or more heliports, it may be necessary to amend this decision. Numbers of landings allowed

by the Forest Service could then be combined with any constraints established to limit noise impacts to residents.

How Significant Issues are Addressed

In making my decision, I considered four major issues identified during the planning process. In the following summary, I disclose how the Selected Alternative addresses each of the significant issues. Tables 2-1 and 2-9 in the FEIS supplement the following discussion and provide a comparison of the alternatives.

Issue 1: Noise Impacts to Residents

This issue centers around the effect that noise has on many residents of the Juneau area. Current complaints from residents have common themes regarding the specific aspects of the noise generated from the commercial helicopter flights:

- The hours of operation are too long and do not provide any quiet time during the day.
- The number of helicopters traveling together causes people to feel overwhelmed by the overflights.
- There are no days of the week that people can experience quiet.
- The helicopters fly too low and do not abide by the minimum altitude guidelines, especially during poor weather and low cloud ceiling conditions.

Noise impact on residents is the issue that has been given the most attention during this environmental impact statement process. The number of landings on the icefield authorized by the Forest Service does affect the number of flights and the noise impacts on residents; however, the Forest Service does not have full control of the noise impact on residents. Helicopter landing tours are only a part of the noise impact problem. Airplanes and helicopters fly from and over Juneau to many other destinations and for flightseeing trips. Even if no landings were allowed on the icefield, there would still be a large number of flightseeing trips over the icefield. The heliport locations, flight paths, and location of houses are not within the control of the Forest Service.

The Forest Service has therefore worked in cooperation with the FAA, the City and Borough of Juneau, flight operators, community groups, and others to address the noise impacts to residents. We have all spent a great deal of time and effort to listen to the concerns of residents and devise ways to reduce noise impacts. Much has been accomplished by the mediation effort, the FAA voluntary letter of agreement (VLOA), noise data collection, the study of alternative sites for heliports, and other efforts to minimize the noise impacts and provide options for even more future noise reduction.

The Selected Alternative addresses the issue of noise impacts on residents by providing an incentive for operators to invest in new technology and new heliport locations that would substantially reduce noise impacts to residents. Without some opportunity for growth in the industry, it would be unlikely that these investments would be made. I will also hold out the incentive to reassess this decision if an operator takes steps to substantially reduce noise impacts. I might provide authorization for more landings if it can be done with reduced noise impacts.

The Selected Alternative provides for the current level of helicopter landings through 2004 and increases beginning in 2005. I realize that some residents and groups find the current level of noise impacts to be objectionable, that the Selected Alternative will not by itself ameliorate their concerns, and that changes that would substantially address their concerns, such as new heliport locations, have not yet been adopted and may or may not eventually come to fruition. This decision was made after much listening and much

consideration of the noise impacts and the other costs and benefits of the flightseeing operations. I wish I had an alternative that would provide the benefits of flightseeing without the noise impact on residents, but such an option is not yet available. I decided that the benefits of the decision—the opportunity for visitors to access the icefield and the economic benefits to Juneau businesses and others—make the Selected Alternative the proper balance.

I considered various limitations on the hours of operations. Shorter hours of operation would reduce (but not eliminate) noise impacts at some times of the day for residents, but it would also concentrate the noise, make the flights more expensive to operate, and reduce the opportunity for visitors to visit the icefield. Longer hours of operation would allow greater noise impacts at times of the day when it would be more burdensome for residents. I believe the Selected Alternative hours of 8:30 a.m. to 8:00 p.m. are the best balance.

I decided to not restrict the days of the week in which landings could occur, as some people requested. There are times every season in which aircraft cannot fly because of weather conditions. Limiting the days of landings might increase costs to operators and visitors and would not eliminate all aircraft flights on those days, nor would it prevent operators from conducting flightseeing trips without landings. Thus, I decided to not limit the days of the week during which visitors can access the icefield.

I realize that the FAA Voluntary Agreement does not require flightseeing operators to fly at the minimum altitudes when weather conditions prevent safe flight at that altitude, and that flights at the lower altitudes can cause more noise impacts. The Forest Service is not regulating flight altitude, and certainly I do not want to hinder safe flying. But I did take into consideration the additional effects of the noise from lower altitude flights under poor weather conditions and that is part of the reason why only moderate additional landings were authorized.

Issue 2: Noise Impacts to Recreationists

This issue focuses on the concern that helicopter flights cause noise disturbance to ground-based recreation users of Forest Service recreational cabins and the Juneau road system backcountry trails and alpine areas, both on and off National Forest System land. Responses to scoping indicate that some people believe that, while they are involved in a recreational activity in a typically quiet setting, hearing helicopters is a negative impact to their recreation experience. Some of the flights that disturb recreation users are helicopter flightseeing tours of the icefield.

The Selected Alternative addresses this issue by locating landing areas to minimize the impact to recreation users as much as possible. Flightseeing operators plan their flight paths to avoid cabins and trails as much as possible. It is not possible to completely avoid recreation areas, so some impact to recreation users will continue. The incentives to build new heliports may result in flight paths that affect fewer recreation areas in the future, but no alternative would eliminate all noise impacts on recreation users. Additionally, noise impacts to recreationists will be one of the selection criteria considered in the Prospectus and Bid process, to be implemented following implementation of this decision (see FEIS, Appendix D).

The Selected Alternative, compared to the Proposed Action, addresses impacts to recreationists by not authorizing helicopter landing tours to expand into the proposed area north of the 1995 EIS study area. Recreationists in Berners Bay will not hear or see additional overflights that would otherwise be generated by the authorization of landings in the area north of the 1995 EIS study area. Likewise, people using the Eagle Glacier area will not be affected by helicopter overflights and landings, which would otherwise be generated by authorizing commercial landing tours on Eagle Glacier. Because landings in Death Valley will now be authorized, backcountry recreationists in that particular vicinity may be affected by the overflights and landings not previously authorized.

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Issue 3: Noise Impacts to Wildlife

This issue addresses the possibility that helicopter tours could stress wildlife species, particularly mountain goats, bears, wolves, moose, bald eagles, and seals at haul-outs near flight routes, landings, and tour activities. The concern is that stress from helicopter activity would cause habitat abandonment or long-term population declines. Wildlife may be negatively affected by the noise and sightings of helicopters.

The Selected Alternative addresses this issue by applying Forest Plan Standards and Guidelines for mountain goats, adopting similar guidelines for other wildlife species of concern, and not authorizing landings in new areas outside the 1995 EIS study area.

Helicopters will maintain a 1,500-foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. This 1,500-foot minimum buffer will be adopted as a condition for black and brown bear, wolves, moose, trumpeter swans, and marine mammals including Steller sea lions, humpback whales, and harbor seals. A 1-mile buffer will be established between helicopter landing sites and important mountain goat kidding areas from May 15 to June 15 each year, where feasible. All new sites for landing tours would have a strict 1-mile-buffer mitigating measure applied to the mountain goat kidding habitat from May 15 to June 15. At historically used sites on Norris, Mendenhall, Herbert, and Gilkey glaciers, if the 1-mile or greater distance cannot be feasibly achieved, a minimum 1,500-foot buffer will be maintained. If landings occur within the 1-mile buffer, additional mitigation measures to be followed include approaching landing sites from near the center of the glacier (as far from goats and kidding habitat as possible, while maintaining safe transit guidelines), and approaching landing sites below the elevation of goats, if terrain and weather allow. If landings occur within the 1-mile buffer, monitoring will help determine if long-term habitat productivity and viability of mountain goat populations is being maintained, and if additional mitigation measures are warranted.

The best information available regarding impacts to goats from helicopter activities in the project area, gathered since the Notice of Intent (NOI) was published, indicates little disturbance is occurring at current levels of activity at current sites.

Forest Service protective measures for wildlife are augmented by other applicable laws. In accordance with the Airborne Hunting Act (Public Law 92-159, 1971, as amended) and Section 5 AAC 92.080 of the Alaska Administrative Code (AAC); shooting or attempting to shoot or harass animals from an aircraft is prohibited except under certain specified conditions. The AAC defines harass to mean repeatedly approaching an animal in a manner that results in the animal altering its behavior. The AAC code is applicable to helicopter tours, and prohibits low passes for passengers to view wildlife if the pass results in the animal changing its behavior.

Issue 4: Impacts in New Areas

This issue centers on the possibility that helicopter landing tours could affect the experience of ground- and water-based recreation users and wildlife in the Berners Bay, Antler Glacier, Antler Glacier Lake, Eagle Glacier, and Death Valley areas. Many individuals who commented expressed concerns that allowing new tours in these areas would adversely affect their recreational experience and wildlife by the addition of noise and people.

The Selected Alternative addresses this issue by allowing commercial landing tours in only one new area: Death Valley. No landings will be allowed in the area north of the 1995 EIS study area, at Antler Glacier, Antler Glacier Lake, or on Eagle Glacier. Landings will be allowed at Death Valley but enclave development will not be authorized because the LUD of Remote Recreation does not allow such minor developments. The impacts to recreationists in Death Valley will, therefore, be minimal, due to the constraints of the LUD. This decision makes one more backcountry area available to commercial landing tours while retaining many other areas in their current state.

Public Involvement

Public involvement has been instrumental in the identification and clarification of issues for this project. This has been helpful in the formulation of alternatives and has assisted me in making a more informed decision regarding helicopter landing tours on the Juneau Icefield. Public meetings, Federal Register notices, newspaper and radio news releases, and group and individual meetings were used to solicit input for this project.

In 1999, scoping was initiated for the EIS. On February 4, 1999, scoping letters were mailed to the public, including individuals, organizations, and agencies. The NOI was published in the Federal Register February 19, 1999. Newspaper ads for the scoping efforts were run in the *Juneau Empire* February 23, 24, and 25, 1999. Approximately 50 people attended an open house scoping meeting held at the Juneau Ranger District February 25, 1999. Approximately 120 letters were received during the formal scoping period that ended March 9, 1999. The Forest Service continued to receive additional comments and considered them in the analysis and this final decision.

For a number of reasons, including delays in completing a sound study and analysis, the Forest Service did not complete a new EIS in time for the 2000-operating season. In January 2000, a letter was sent to 334 individuals, including all of the 1995 EIS recipients, and other parties who expressed interest, notifying them that the special use permits for the helicopter landing tours were extended for 1 year through December 31, 2000. An NOI was published in the Federal Register March 24, 2000, to reflect this extension.

On November 17, 2000, the Forest Service extended the special use permits for another year through December 31, 2001, pending completion of the new EIS.

Availability of the Draft EIS was announced in the Federal Register on August 10, 2001, with a due date for public comments listed as September 24, 2001. A public meeting held in Juneau on September 6, 2001, was attended by approximately 72 people, 11 of whom made oral comments on the DEIS.

On September 21, 2001, the due date for comments was extended to October 1, 2001. Written comments included 84 e-mails, 57 letters, 17 comment forms, and 2,086 formatted, pre-addressed comment cards from people who participated in helicopter landing tours during the comment period. In total, there were approximately 3,167 individual comments submitted in 2,255 oral or written statements.

The letters, e-mails, comment forms, and oral comments received during the comment period were responded to in the FEIS (Appendix E). The comments themselves appear in Appendix F of the FEIS.

The FEIS has been filed with the Environmental Protection Agency and is available for public review.

Coordination with Other Agencies

From the time scoping was initiated, meetings and other contacts with interested local, state, and federal agencies have occurred. Issues were discussed and information was exchanged with these agencies, which included the CBJ, the FAA, and the Alaska Department of Fish and Game (ADF&G), among others. The FEIS identifies the agencies that were informed of and/or involved in the planning process (see *List of Document Recipients* in Chapter 5 of the FEIS).

Alternatives Eliminated from Detailed Study

Several options were considered for the DEIS, but were not carried forward as alternatives. These options and the reasons for not considering them are discussed below.

Satellite Heliports

All helicopter flights that are in association with the Juneau Icefield commercial landing tours originate from the Juneau Airport or other CBJ-approved heliports. Some Juneau residents have promoted the concept of satellite heliports as the most viable solution to the noise problem in Juneau (Tourism Advisory Committee, 1999b, 2000b). Table 2-9 of the FEIS lists some of the sites that have been considered. The CBJ has recently released Michael Baker and BridgeNet International's *Alternative Heliport Site Analysis* (2001) that evaluates and recommends alternative heliport sites. As discussed in Chapter 1 of the FEIS, recommended sites include Montana Creek in the north and Dupont in the south. The analysis also found that if flightseeing tours moved from the Juneau Airport and the Era base to these two alternative sites, the number of homes in the 6,000-foot (1.1-mile) noise corridor would be reduced from 6,037 to zero (Michael Baker and BridgeNet International, 2001). The results of this analysis are currently being reviewed and action is being considered by the CBJ.

While the Forest Service cannot require relocation of private heliports, should satellite heliport(s) be developed, we would evaluate the effects of new flight paths in association with the landing tours, and document that analysis and proposed changes in accordance with the National Environmental Policy Act (NEPA) and Forest Service policy and procedures. Because decisions regarding locations and operations of satellite heliports have not been made, this alternative was eliminated from further study. The potential development of remote heliports is, however, recognized in my decision and may result in this decision being revisited before 2007.

Forest Service- Designated Flight Paths

The alternative of authorizing only those helicopter landings on the icefield that used Forest Service-designated flight paths was dismissed for several reasons. As discussed in Chapter 1 of the FEIS, the Forest Service does not have the authority to stipulate or enforce flight paths for aircraft. In addition, assuming that heliports remain at the current locations, the flight paths used are generally dictated by the weather. Because of the proximity of residential areas to one another, moving flight paths one way or the other would reduce impacts to some residents, but would increase impacts to others by rerouting flights over other residents. Directing the helicopter tour companies to fly specific routes would not be within Forest Service authority and would not decrease impacts but, rather, would displace them to other areas.

Alternative routes, altitudes, zones, poor weather route variables, and scheduling of helicopter flights have been considered under the CBJ-contracted noise studies to identify possible new routes. This involves modeling the effects of differing flight densities (i.e., spreading out individual aircraft in a flight, or group, vs. decreasing spacing between aircraft) and of differing number of aircraft per flight (flights of 5 vs. flights of 12, for example). Because the effects of these scenarios are speculative at this time, this alternative was eliminated from further study.

Maximum Requested Landings (41,691)

Helicopter companies were asked to provide their estimated maximum number of landings per year through 2006. Collectively, they added up to 41,691 landings, and it appears that each company assumed it would get the full share of any estimated market growth. Cruise ship passenger growth over the past 15 years has averaged approximately 10 percent annually, and is forecast at 5 percent annually beyond 2000. Actual helicopter landings leveled off at less than 17,000 landings per year in 1998 through 2000, possibly due to poor weather, market saturation, or other reasons. Because there appears to be no analytical basis for the nearly 42,000 landings, this alternative was eliminated from further study.

Tours Concentrated in One Area

A suggestion has been made to concentrate the majority or all of the flights and associated landings into one area of the icefield so that helicopter flight impacts would also be concentrated in one area, thus promoting the expectation that there would be few or no helicopter tour overflights in other areas. This alternative was eliminated from consideration because it is not practical. Lower Taku Glacier is the most logical place to concentrate tours if the intent is to reduce noise impacts to Juneau residents and on-the-ground recreationists. The terrain of Taku Glacier is such that it could not accommodate all the current landings, and those landings that could be accommodated would not produce an acceptable user experience. Because it cannot be practically implemented, this alternative was eliminated from further consideration.

Alternatives Selected for Detailed Evaluation

Eight alternatives are evaluated in the FEIS, including a No-Action Alternative. The range of alternatives addressed the major issues associated with this project. The seven action alternatives differed from each other in various components, including the total number of landings allowed (shown in Tables 3 through 8), the days per week and number of hours per day landings would be allowed, landing locations, wildlife buffer size, use of trail end buffers, and use of motorized snow vehicles on the icefield. Features of each alternative are shown on Table 9.

The alternatives are summarized as follows:

Alternative A— No Action

This alternative represents the viewpoint of people who do not want any helicopter flightseeing or commercial helicopter landings on the Juneau Icefield. It does not meet the purpose and need of the Proposed Action. Under the No-Action Alternative, the current permit extensions would be allowed to expire December 31, 2002. No new special use permits to land helicopters on the Juneau Icefield would be issued to the helicopter companies. There could be some increase in requests for point-to-point landing permits, although the cruise ship passengers who make up the majority of helicopter landing tour customers are not generally in the market for point-to-point trips. Flightseeing-only tours (helicopter tours that do not land on NFS lands) are outside the jurisdiction of the Forest Service and would most likely still occur, even if no landings are authorized.

There are many places where flightseeing-only tours occur, both in Alaska and elsewhere. Cruise ship passengers, for example, already have the opportunity to select flightseeing-only tours in Juneau, Skagway, and other ports of call. Although these flights are generally less expensive than tours that land, they are selected by only several hundred cruise ship passengers who take flightseeing tours in Juneau (Thomas, 2001). In other areas where flightseeing is a popular tourist activity, some areas do not allow any tours that land. In Hawaii, for example, competition for landing permits on the Ne Pali Coast on the island of Kauai eventually led land managers to no longer permit helicopter landings on public (state) lands.

I did not choose Alternative A as the Selected Alternative because Alternative A does not meet the purpose and need for meeting current public demand for access to remote locations on the Juneau Icefield. I recognize that, without the authorization of special use permits for landings on the icefield, flightseeing could occur up to the levels of public demand.

Alternatives B through H—Action Alternatives

Alternatives B through H would allow various levels of commercial landing tours on the Juneau Icefield. The associated flight paths and altitudes, for the most part, are outside the jurisdiction of the Forest Service. The FAA and airspace users manage the routes and altitudes used. The guiding documents and agreements between the affected parties are based on the May 10, 1999, VLOA between helicopter operators and the Juneau ATCT.

(FAA, 1999). In addition, the VLOA between the Flight Standards Office and Juneau airspace users is assumed to apply through 2006 (refer to Chapter 1, under the heading *Federal Aviation Administration*).

Alternative B—Reduce Icefield Landings to 1994 Actual Use Level

Alternative B (see FEIS Figure 2-2) best represents the citizens who want to reduce the number of helicopter landing tours on the Juneau Icefield. Under this alternative, special use permits could be approved through 2007. This alternative would incrementally reduce the current authorized use level of 19,039 landings to the 1994 actual use level of 11,881¹. The number of authorized landings would decrease an average of 9 percent each year, as shown in Table 3.

Table 3. Authorized Maximum Number of Landings Each Year—Alternative B

	2003	2004	2005	2006	2007
Number of landings authorized	17,325	15,766	14,347	13,056	11,881
% change (from previous year)¹	-9	-9	-9	-9	-9
Average number of landings per day²	163	149	135	123	112

¹ 2003 shows % change from landings authorized in 1999, 2000, 2001, and 2002 (19,039 landings).

² Based on a 106-day season, May 1 to September 30; no operations on weekends or holidays.

Landings would be authorized between 8:30 a.m. and 6:00 p.m., 5 days a week from early May through late September. Saturdays, Sundays, holidays (Memorial Day, Independence Day, and Labor Day), and evenings from 6:00 p.m. to 8:00 p.m. would be quieter than currently. Flight paths and landing sites would remain generally the same as those currently used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, and bears where feasible. The proposed combination helicopter and fixed-wing tour with landings at the base of Antler Glacier and on Antler Glacier Lake, as well as other areas north to the Haines/Juneau Borough line, would not be allowed. No motorized snow vehicle use would be authorized on the icefield in any of the LUDs.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on FEIS Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Reducing the number of authorized landings from the 1999 authorized use level of 19,039
- Limiting landings to weekdays only in the existing area of operations and allowing no landings on the three major holidays
- Limiting the hours landings could occur to between 8:30 a.m. and 6:00 p.m., the shortest operating day of any of the alternatives
- Not authorizing motorized snow vehicle tours at any location on the icefield

¹ Although the number of actual landings was reported as 11,647 in the 1995 EIS, actual use data showed the number of landings to be 11,881. Subsequent Forest Service reports recalculated the actual use level to be 11,793 landings; however, the FEIS and ROD use the 1994 values reported in the Draft EIS (11,881). Reporting and tracking procedures for numbers of landings were not consistent during 1994.

- Not authorizing landings within the trail buffers (0.5 mile at West Glacier Trail; 1 mile at Herbert Glacier Trail)

I did not choose Alternative B as the Selected Alternative because, although it would lead to decreased impacts to residents and on-the-ground forest users, it would not meet the purpose and need by meeting public demand for quality, outfitter-guided services that provide safe helicopter access to remote locations on the Juneau Icefield. Public demand is greater than the level of use considered under Alternative B.

The proposed trail end buffers in Alternative B would be difficult to implement, therefore I have decided to not include this component in the Selected Alternative. Mitigating noise impacts to recreationists at the trail ends will be considered in the Prospectus and Bid process (see FEIS Appendix D).

I have decided that restrictions on hours and days of operation would create too much restriction of public access to National Forest System land.

Alternative C—Limit Icefield Landings to 1999 Actual Use Level

Under this alternative (see FEIS Figure 2-2), special use permits could be approved through 2007. This alternative would hold the authorized landings at the 1999 actual use level of 16,706, with added day restrictions, as shown in Table 4.

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 6 days a week from early May through late September. Landings would not occur on Sunday and major holidays (i.e., Memorial Day, Independence Day, and Labor Day). Flight paths and landing sites would remain generally the same as currently used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, and bears where feasible. The proposed helicopter and fixed-wing tour with landings at Antler Glacier Lake, as well as other new areas north to the Haines/Juneau Borough line, would not be allowed. No motorized snow vehicle use would be authorized on the icefield.

Table 4. Authorized Maximum Number of Landings Each Year—Alternative C

	2003	2004	2005	2006	2007
Number of landings authorized	16,706	16,706	16,706	16,706	16,706
% change (from previous year)¹	0	0	0	0	0
Average number of landings per day²	128	128	128	128	128

¹ 2003 shows % change from actual landings in 1999 (16,706 landings).

² Based on a 128-day season, May 1 to September 30; no operations on one day a week and holidays.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on FEIS Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Reducing by approximately 12 percent the number of authorized landings from the 1999 authorized use level of 19,039 landings
- Limiting landings to 6 days a week in the existing area of operations and allowing no landings on the three major holidays

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- Not authorizing motorized snow vehicle tours at any location on the icefield
- Not authorizing landings within the trail buffers (0.5 mile at West Glacier Trail; 1 mile at Herbert Glacier Trail)

I have not chosen Alternative C as the Selected Alternative. Although it would authorize landings at recent demand levels, Alternative C would not meet the projected 5 percent annual increase in demand. While this would not increase impacts to people and resources, it would also not provide for the appropriate balance of forest uses by meeting projected demand for the tours.

The proposed trail end buffers in Alternative C would be difficult to implement, therefore I have decided to not include this component in the Selected Alternative. Mitigating noise impacts to recreationists at the trail ends will be considered in the Prospectus and Bid process (see FEIS Appendix D).

I have decided that restrictions on the days of operation per week would create too much restriction of public access to National Forest System land.

Alternative D—Limit Icefield Landings to 1999 Authorized Level

Special use permits could be approved through 2007 under this alternative (see FEIS Figure 2-4). It would limit helicopter tour landings to the existing authorized level of 19,039, with limited new locations and day restrictions, as shown in Table 5.

Table 5. Authorized Maximum Number of Landings Each Year—Alternative D					
	2003	2004	2005	2006	2007
Number of landings authorized	19,039	19,039	19,039	19,039	19,039
% change (from previous year)¹	0	0	0	0	0
Average number of landings per day²	149	149	149	149	149

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized landings (19,039 landings).

² Based on a 128-day season, May 1 to September 30; no operations on one day a week and holidays.

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 6 days a week from early May through late September in the existing areas of operation, and 5 days a week in the new areas. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. Landings would not be allowed on Sunday and major holidays (i.e., Memorial Day, Independence Day, and Labor Day) in the existing areas. Landing tours in new areas north to the Haines/Juneau Borough line would be allowed, but only on weekdays. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in the existing areas of operation and a minimum distance of 1 mile in the new areas where feasible. Motorized snow vehicle use could be authorized on the icefield in the Semi-Remote Recreation LUD only.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on FEIS Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Limiting landing tours to 6 days a week in the existing areas of operation, and allowing none on the three major holidays
- Limiting landings to weekdays only and allowing none on the three major holidays for the new areas of operation, including Antler Glacier and other areas north to the Haines/Juneau Borough line
- Establishing a minimum 1-mile buffer from wildlife in new areas of operation
- Not authorizing motorized snow vehicle tours in Remote Recreation LUDs
- Not authorizing landings within the trail buffers (0.5 mile at West Glacier Trail; 1 mile at Herbert Glacier Trail)

I have not chosen Alternative D as the Selected Alternative because, like Alternative C, Alternative D would authorize landings near recent demand levels but would not meet the projected 5 percent annual increase in demand. While this would not increase impacts to people and resources, it would also not provide for an appropriate balance of forest uses by meeting projected demand for tours. Alternative D would also allow landings, and the associated noise impact, in new areas north to the Haines/Juneau Borough line, an area of the icefield that currently has no commercial glacier tour landings.

I have chosen to not incorporate the motorized snow vehicle tours component of Alternative D into the Selected Alternative, as it could adversely affect the recreation experience for all users on the icefield. Noise generated by snow machines would be noticeable on the open icefield environment more so than in a forested environment where vegetation buffers the engine sounds. It is my decision to maintain the recreation experience as non-motorized on the Juneau Icefield.

The proposed trail end buffers component in Alternative D would be difficult to implement, therefore I have decided to not include this component in the Selected Alternative. Mitigating noise impacts to recreationists at the trail ends will be considered in the Prospectus and Bid process (see FEIS Appendix D).

Alternative E—Proposed Action

Special use permits could be approved through 2007 under this alternative (see FEIS Figure 2-5), which would limit helicopter tour landings to the existing authorized level of 19,039, with limited new locations and day restrictions, as shown in Table 6.

Table 6. Authorized Maximum Number of Landings Each Year—Alternative E

	2003	2004	2005	2006	2007
Number of landings authorized	19,039	19,039	19,039	19,039	19,039
% change (from previous year)¹	0	0	0	0	0
Average number of landings per day²	124	124	124	124	124

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30.

Landings in the existing operating areas would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from May 1 through the end of September and 5 days per week (Monday through Friday) in the new areas. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. The combination helicopter and fixed-wing tour with landings at Antler Glacier Lake would be allowed. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in existing areas of operations and 0.5 mile in the new areas, except for the combination fixed-wing and helicopter tour to Antler Glacier

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Lake, where both the fixed-wing and helicopter landings would be within the minimum wildlife buffer.² Motorized snow vehicle use could be authorized on the icefield in areas with a LUD of Semi-Remote Recreation.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on Figure 2-3 of the FEIS. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination. Commercial tours would be allowed to land within these buffers before June 1 of the current operating season if snow conditions prohibit safe landings on the upper portions of the glaciers where landings have been authorized.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Limiting landings to weekdays only and allowing none on the three major holidays for the new areas of operation, including Antler Glacier Lake and other areas north to the Haines/Juneau Borough line
- Establishing a minimum 0.5-mile wildlife resource buffer in new areas of operation, with the exception of landings at Antler Glacier Lake
- Not authorizing motorized snow vehicle tours in Remote Recreation LUDs
- Not authorizing landings on Eagle Glacier or Death Valley
- Not authorizing landings within the trail end buffers on Herbert Glacier Trail or West Glacier Trail except as necessary during the early part of the season when snow and ice conditions higher up on these two glaciers prohibit safe landings

I have not chosen Alternative E as the Selected Alternative because, like Alternatives C and D, Alternative E would authorize landings near recent demand levels but would fall below projected demand. While this would not increase impacts to people and resources, it would also not provide for an appropriate balance of forest uses by meeting projected demand for tours. Alternative E would also allow landings, and the associated noise impact, in new areas north to the Haines/Juneau Borough line, an area of the icefield that currently has no commercial glacier tour landings. It would allow snow vehicle use in Semi-Remote Recreation LUDs, expanding the impact of noise to those areas. The Selected Alternative would not expand use to the area north to the Haines/Juneau Borough line, and would also not expand noise impacts by allowing snow vehicle use in Semi-Remote Recreation LUDs.

I have chosen to not incorporate the motorized snow vehicle tours component of Alternative E into the Selected Alternative, as it would adversely affect the recreation experience for all users on the icefield. Noise generated by snow machines would be noticeable on the open icefield environment more so than in a forested environment where vegetation buffers the engine sounds. It is my decision to maintain the recreation experience as non-motorized on the Juneau Icefield.

² At the time that the Proposed Action was published in the Federal Register (February 1999), the Antler Glacier Lake proposal had not been explored thoroughly enough to determine the distance between wildlife habitat and the proposed flight paths and associated landings. Further analysis has revealed that the Antler Glacier Lake proposal does not meet the minimum wildlife buffer requirements identified in the Forest Plan, nor does it meet the more restrictive wildlife buffer requirement identified in this alternative. For analytical purposes, however, and to retain all of the items proposed for review in the Federal Register notice, the Antler Glacier Lake proposal is included in Alternative E, and the impacts are disclosed in FEIS Chapter 4, Environmental Consequences.

The proposed trail end buffers in Alternative E would be difficult to implement, therefore I have decided to not include this component in the Selected Alternative. Mitigating noise impacts to recreationists at the trail ends will be considered into the Prospectus and Bid process (see FEIS Appendix D).

Alternative F—Increase Authorized Icefield Landings 5 Percent Annually, with New Locations

This alternative (see FEIS Figure 2-6) parallels the estimated growth in cruise ship passengers to Juneau, based on the Juneau Convention and Visitors Bureau 1999 report and personal communications with the JCVB (2001a, 2001b, 2001c). With this alternative, special use permits could be approved through 2007. This alternative would authorize an increase in the number of helicopter landings to 24,299 by the fifth year of operations. This is approximately a 5 percent increase each year from the 1999-2002 annual authorized level of 19,039, as shown in Table 7.

Table 7. Authorized Maximum Number of Landings Each Year—Alternative F

	2003	2004	2005	2006	2007
Number of landings authorized	19,991	20,990	22,040	23,142	24,299
% change (from previous year)¹	+5	+5	+5	+5	+5
Average number of landings per day²	131	137	144	151	158

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from early May through late September in the existing operating areas. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in existing areas of operations and a 0.5-mile distance in new areas, where feasible. The proposed tour allowing snow vehicles on the icefield would be allowed in areas with a LUD of Semi-Remote Recreation. The helicopter tours with landings on Eagle Glacier and in Death Valley, and landing tours in areas north to the Haines/Juneau Borough line would be allowed 7 days a week.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the ends of the Herbert Glacier and Eagle Glacier trails, as shown on Figure 2-3 of the FEIS. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination. Commercial tours would be allowed to land within these buffers before June 1 of the current operating season if snow conditions prohibit safe landings on the upper portions of the glaciers where landings have been authorized.

This alternative would respond to the helicopter tour companies' requests for increased landings and landings in new areas. It addresses the issues of noise and visual disturbance to residents, ground-based recreation users, and wildlife by imposing the same restrictions that are currently in the special use authorizations, with the addition of:

- Establishing a minimum 0.5-mile wildlife resource buffer in new areas of operation
- Establishing trail end buffers for landings at Herbert Glacier, West Glacier, and Eagle Glacier trails, where landings would be prohibited except as necessary during the early part of the season when snow and ice conditions higher on the glaciers would prevent safe landings
- Not authorizing motorized snow vehicle tours in Remote Recreation LUDs

I did not select Alternative F because it would allow increased noise impacts to residents in the immediate future. Alternative F does not address noise impacts to residents because it does not allow time for the expected development of satellite heliports before authorizing an increase in landings. While there would be no direct safety hazards from the sound generated from the increased flights, the annoyance level would increase. This alternative would also allow landings in new areas, including the area north to the Haines/Juneau Borough line, Eagle Glacier, and Death Valley. This would increase impacts to recreation visitors by allowing commercial glacier tour landings in areas where none are currently authorized. It would also allow snow vehicle use in Semi-Remote Recreation LUDs, expanding the impact of noise to those areas. I have included one new area, Death Valley, in the Selected Alternative in order to provide some additional access to National Forest System land.

I have chosen to not incorporate the motorized snow vehicle tours component of Alternative F into the Selected Alternative, as it would adversely affect the recreation experience for all users on the icefield. Noise generated by snow machines would be noticeable on the open icefield environment more so than in a forested environment where vegetation buffers the engine sounds. It is my decision to maintain the recreation experience as non-motorized on the Juneau Icefield.

The proposed trail end buffers in Alternative F would be difficult to implement, therefore I have decided to not include this component of Alternative F in the Selected Alternative. Noise impacts to recreationists at the trail ends will be incorporated into the Prospectus and Bid process (see FEIS Appendix D).

Alternative G—Increase Authorized Icefield Landings 10 Percent Annually, with New Locations

This alternative (see FEIS Figure 2-7) best represents the requests from the helicopter companies that conduct icefield-landing tours. With this alternative, special use permits could be approved through 2007. This alternative would authorize an increase in the number of helicopter landings to 30,662 by the fifth year of operations. This is approximately a 10 percent increase each year from the 1999-2002 annual authorized level of 19,039, as shown in Table 8.

Table 8. Authorized Maximum Number of Landings Each Year—Alternative G	2003	2004	2005	2006	2007
Number of landings authorized	20,943	23,037	25,341	27,875	30,662
% change (from previous year)¹	+10	+10	+10	+10	+10
Average number of landings per day²	139	151	166	182	200

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30.

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from early May through late September. Flight paths would remain generally the same as those currently used, although new flight paths to new landing areas would also be used. All flights would maintain a distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in all areas, where feasible. The proposed tour allowing snow vehicles on the icefield would be allowed in Remote and Semi-Remote Recreation LUDs. All helicopter tours with landings in new areas north to the Haines/Juneau Borough line, as well as new landing tours at Eagle Glacier and Death Valley, would be allowed 7 days a week.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by maintaining restrictions contained in the current permits.

Table 9. Alternatives

Component	Alternative A No Action	Alternative B (FEIS Figure 2-2)	Alternative C (FEIS Figure 2-2)	Alternative D (FEIS Figure 2-4)	Alternative E Proposed Action (FEIS Figure 2-5)	Alternative F (FEIS Figure 2-6)	Alternative G (FEIS Figure 2-7)	Alternative H Preferred Alternative (FEIS Figure 2-8)
Description	No authorized landings, with no flight restrictions	Reduce icefield landings 9% annually from 1999 authorized to 1994 actual use level, with time and day restrictions	Limit icefield landings to 1999 actual use level, with some day restrictions	Limit icefield landings to 1999 authorized use level, with limited new locations and some day restrictions	No increase from 1999 authorized use level, with limited new locations and some day restrictions	Increase authorized icefield landings 5% annually from 1999 authorized use level, with new locations	Increase authorized icefield landings 10% annually from 1999 authorized use level, with new locations	Limit icefield landings to 2002 authorized use level in 2003 and 2004, then increase authorized icefield landings 5% annually, with one new location
Number of landings (by 2007)	None	11,881	16,706	19,039	19,039	24,229	30,662	22,040
Hours landings can occur	None	8:30 a.m. to 6:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.
Days per week landings can occur	None	5	6	6 in existing areas, 5 in new areas	7 in existing areas, 5 in new areas	7 in existing areas, 7 in new areas	7 in existing areas, 7 in new areas	7 in existing areas, 7 in new areas
Days per season landings are allowed ¹	No limits	106	128	128	153	153	153	153
Average # of landings per day (by 2007)	None	112	131	149	124	158	200	144
Landing locations	None	Same as now; no new areas	Same as now; no new areas	Addition of new areas north of 1995 EIS area	Addition of new areas north of 1995 EIS area	Addition of Eagle Glacier, Death Valley, and new areas north of 1995 EIS area	Addition of Eagle Glacier, Death Valley, and new areas north of 1995 EIS area	Addition of Death Valley
Flight paths	No limits	Same as now	Same as now	Same as now with addition of new areas	Same as now with addition of new areas	Same as now with addition of new areas	Same as now with addition of new areas	Same as now with addition of new areas
Distance from wildlife	No limits	1,500 feet	1,500 feet	1,500 feet in existing areas; 1 mile in new areas	1,500 feet in existing areas, 0.5 mile in new areas, except for Antler Glacier Lake	1,500 feet in existing areas; 0.5 mile in new areas	1,500 feet in all areas	1,500 feet in all areas
Trail end buffers	None	Yes	Yes	Yes	Yes, with some exceptions for safety in the early season, at Herbert Glacier Trail and West Glacier Trail	Yes, with some exceptions for safety in the early season, at Herbert Glacier Trail, Eagle Glacier Trail, and West Glacier Trail	No	No
Motorized snow vehicle tours	None	None	None	In Semi-Remote Recreation LUD	In Semi-Remote Recreation LUD	In Semi-Remote Recreation LUD	In Semi-Remote and Remote Recreation LUDs	None
Expanded area north to the Haines/Juneau Borough line	No	No	No	Yes, new areas weekdays only	Yes, new areas weekdays only	Yes	Yes	No
Eagle Glacier and Death Valley landings	No	No	No	No	No	Yes	Yes	Death Valley only
Antler Glacier Lake landings	No	No	No	No	Yes	No	No	No
Consistent with Forest Plan	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

¹ Primary use season: May 1 – September 30, a total of 153 probable days of operation. Note that use may occur during the shoulder season, prior to May 1 and after September 30.

I did not select Alternative G because it would allow increased noise impacts to residents in the immediate future. Alternative G does not allow time for the expected development of satellite heliports before authorizing an increase in landings. Alternative G would exceed the projected demand for tours, leading to an 84 percent increase in the number of landings in 2007. While there would be no direct safety hazards from the sound generated from the increased flights, the annoyance level would increase. This alternative has the greatest potential for adverse impacts to wildlife and on-the-ground recreationists because flights would likely be over areas that currently have few or no commercial icefield landing tour flights. This alternative would also allow landings, and the associated noise impact, in areas of the icefield that currently have no commercial icefield tour landings, including the area north to the Haines/Juneau Borough line, Eagle Glacier, and Death Valley. It would also allow snow vehicle use in Semi-Remote Recreation LUDs, expanding the impact of noise to those areas. I have included one new area, Death Valley, in the Preferred Alternative in order to provide some additional access to National Forest System land, but have not authorized snow machine use on the icefield as part of the Preferred Alternative.

I have chosen to not incorporate the motorized snow vehicle tours component of Alternative G into the Selected Alternative, as it would adversely affect the recreation experience for all users on the icefield. Noise generated by snow machines would be noticeable on the open icefield environment more so than in a forested environment where vegetation buffers the engine sounds. It is my decision to maintain the recreation experience as non-motorized on the Juneau Icefield.

Alternative H—Preferred Alternative

Alternative H, the Selected Alternative, is described on pages 2 through 16 of this ROD.

Environmentally Preferred Alternative

Alternative A—No Action is the environmentally preferred alternative. The definition of environmentally preferred is the alternative that causes the least damage to the biological and physical environment, and which best protects, preserves, and enhances historic, cultural, and natural resources. Of the action alternatives, Alternative B is the environmentally preferred alternative because it would involve the least number of landings, and hence the least amount of noise and the least noise impact on residents, on-the-ground recreationists, and wildlife.

Planning Record

The planning record for this project includes the DEIS, FEIS, Forest Plan, Alaska Regional Guide, materials incorporated by reference, and materials produced during the environmental analysis of this project. The planning record is available for review at the Juneau Ranger District. A copy of the entire planning record is also available on CD. Planning record CDs can be provided by the Juneau Ranger District.

Mitigation

Mitigation measures are prescribed to avoid, reduce, minimize, or eliminate the adverse effects of actions. These measures were applied in the development of the project alternatives, including the Selected Alternative. The *Mitigation Measures* section of Chapter 2 and Appendix B of the FEIS describe mitigation measures that are designed to ensure that all practicable means have been adopted to avoid or minimize potential

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environmental impacts from the Selected Alternative during the term of the special use permits. These measures are adopted as part of this decision and will be implemented.

Monitoring

A monitoring program is the process by which the Forest Service can evaluate whether the resource management objectives of the final environmental documents have been implemented as specified and whether the steps identified for mitigating the environmental effects were effective. Project-level monitoring is discussed in Chapter 2 of the FEIS. This monitoring program is part of this decision and will be implemented.

The Forest Service will conduct monitoring activities to determine whether the mitigating measures described in Chapter 2 of the FEIS are effective and meet the intent of the special use permit stipulations. Monitoring activities will include field observations at and near Forest Service trails, Forest Service cabins, and wildlife areas. The Forest Service also will conduct on-site inspections of the permitted outfitter guided activities on the Juneau Icefield. Comments provided by Juneau residents and Tongass National Forest users will be reviewed as part of the monitoring program.

If the Forest Service finds the mitigating measures are not effective in their intent, additional requirements, limitations, or more mitigating measures may be developed and incorporated as stipulations to the commercial use permit authorizations. All operators will be asked to report observations of mountain goats, brown and black bears, moose, wolves, and wolverines to the Forest Service by November 1 of the operating year. All operators will be asked to report to the US Fish and Wildlife Service (USFWS) office and the Forest Service any eagle nests found that are not indicated on Figure 2-9 of the FEIS.

Some elements of the monitoring program will be incorporated into the Prospectus and Bid system to be implemented in 2003. If monitoring activities reveal results that deviate from planned effects, corrective actions may be prescribed through the Prospectus and Bid system. The Juneau District Ranger is responsible for ensuring that project implementation, mitigation, monitoring, and enforcement are accomplished as specified in the FEIS.

Findings Required by Law

1997 Forest Plan

This decision is consistent with the Tongass Land and Resource Management Plan. The Forest Plan provides the land management direction for the Tongass National Forest. Forest Plan LUDs for the project area are displayed on Figure 1-4 of the FEIS. These LUDs and the corresponding management prescriptions direct what, where, and how much proposed activity the Forest Service can authorize.

The Forest Plan contains many forest-wide standards and guidelines that apply to all LUDs on the National Forest System land. Chapter 4 of the Forest Plan addresses these specific standards and guidelines for recreation and tourism; threatened, endangered, and sensitive species; and wildlife habitat planning as they apply to protection and management of different forest resources. These forest-wide standards and guidelines are used in conjunction with the additional standards and guidelines included within each management prescription for individual LUDs. All authorized activities must be consistent with the Forest Plan.

The FEIS summarizes the forest-wide standards and guidelines as they apply to the proposed helicopter landing activities in Chapter 1 under the heading *Management Direction*. The full text of the standards and guidelines appears in Appendix B of the FEIS.

National Forest Management Act

National Forest Management Act (NFMA) implementing regulations require that all undeveloped areas that are of sufficient size to make practicable their conservation and use in an unimpaired condition must be evaluated for Recommended Wilderness designation during a Forest Plan revision (36 Code of Federal Regulations [CFR] 219.27). The SEIS to the 1997 Tongass Land Management Plan Revision EIS is currently being prepared to complete this evaluation.

The project area for the EIS encompasses, but is not completely inclusive of, inventoried Roadless Areas 301, 302, 305, 310, and 313 (refer to Figure 3-1 and Chapter 3 in the FEIS for Roadless Area descriptions). FSM 1920 and FSH 1909.12 provide policy and guidelines for management of these areas and state that a roadless area being evaluated, and ultimately recommended for Wilderness or wilderness study, is not available for any use or activity that may reduce the area's wilderness potential. Activities currently permitted may continue, pending designation, if the activities do not compromise wilderness values of the roadless area. The actions authorized by this decision will not change the roadless character of this area nor will it compromise wilderness values of the roadless area. Any actions authorized by this decision could be terminated, temporary structures removed, and the landing areas would revert to a pre-activity condition (FEIS, Chapter 4, *Introduction*; see also FEIS Appendix E, Response to C-2).

Endangered Species Act of 1973 (as reauthorized in 1988)

Actions authorized in the Selected Alternative are not anticipated to have a direct, indirect, or cumulative effect on any threatened or endangered species. The USFWS and National Marine Fisheries Service (NMFS) administer the Endangered Species Act (ESA), as reauthorized in 1988. The Forest Service has consulted with USFWS regarding terrestrial threatened or endangered species and with NMFS regarding marine threatened or endangered species that might be affected by proposed activities associated with the helicopter landing tours on the Juneau Icefield. Both agencies concur that the actions authorized by the Selected Alternative are not anticipated to have a direct, indirect, or cumulative effect on any threatened or endangered species.

Marine Mammal Protection Act of 1972

Actions authorized in the Selected Alternative are not anticipated to have a direct, indirect, or cumulative effect on marine mammals. NMFS administers the Marine Mammal Protection Act (MMPA), which prohibits the "take" of all marine mammal species in U.S. waters. "Take" is defined as: "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Harassment is defined in the MMPA as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

The Bald and Golden Eagle Protection Act of 1940 (as amended)

The Selected Alternative is not anticipated to have a significant direct, indirect, or cumulative effect on any bald eagle habitat. Administered by USFWS, the Bald Eagle Protection Act of 1940, as amended, makes it unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, their parts, products, nests, or eggs. "Take" includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles.

Fish and Wildlife Coordination Act of 1934 (16 USDF 66, et seq.)

This decision is consistent with the Fish and Wildlife Coordination Act, which requires federal agencies to solicit comments from USFWS and ADF&G regarding the impacts on fish and wildlife resources and measures to mitigate these impacts. It requires that fish and wildlife resources receive equal consideration to other project features.

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Alaska National Interest Lands Conservation Act Section 810, Subsistence Evaluation and Finding

This decision is consistent with the Alaska National Interest Lands Conservation Act, which requires that the effects of this project be evaluated to determine potential effects on subsistence opportunities and resources. That evaluation has been made, and no potential impacts were identified (Forest Service, 2001).

Coastal Zone Management Act of 1972 (as amended)

This decision does not require a consistency determination with the Coastal Zone Management Act, which requires the Forest Service, when conducting or authorizing activities or undertaking development directly affecting the coastal zone, to ensure that the activities or development be consistent with the approved Alaska Coastal Management Program to the maximum extent practicable. In accordance with Section 302 of the "Memorandum of Understanding between the State of Alaska and the USDA Forest Service, Alaska Region, on Coastal Zone Management Act/Alaska Coastal Management Program Consistency Reviews" (FS Agreement No. 00MOU-111001-026, effective March 2, 2000), this project falls into a category of permitting actions that does not require a consistency determination.

National Historic Preservation Act of 1966

I have determined that there will be no significant effects on heritage resources. The Forest Service program for compliance with the National Historic Preservation Act includes locating, inventorying, and nominating all cultural sites that may be directly or indirectly affected by the scheduled activities. No cultural site survey is required on snowfields and icefields per the programmatic agreement between the Forest Service, the State Historic Preservation Officer, and the Advisory Committee. If any historic, prehistoric, or paleontological objects or sites are discovered during the helicopter landing tours and associated activities, the outfitter/guide must notify the Forest Service. Items of historic, prehistoric, or paleontological value are protected under various federal laws, including the Antiquities Act of 1906 (16 USC 433), the Archeological Resources Protection Act of 1979 (16 USC 470ee), and federal regulations.

Flood Plain Management (EO 11988), Protection of Wetlands (EO 11990), and Environmental Justice (EO 12898)

These Executive Orders (EOs) include specific factors that all federal agencies must consider before implementing activities on federal lands. The Selected Alternative does not modify any floodplains or wetlands. I have also determined that implementation of the Selected Alternative will not cause adverse health or environmental effects that disproportionately affect minority and low-income populations.

Implementation Process

Implementation of decisions made by the Juneau District Ranger, which are subject to appeal pursuant to 36 CFR part 215, may occur on, but not before, five (5) business days after the close of the appeal filing period. The appeal filing period closes forty-five (45) days after publication of legal notice of this decision in the *Juneau Empire* newspaper, published in Juneau, Alaska.

Procedure for Changes During Implementation

Proposed changes to the authorized project actions will be subject to the requirements of the NEPA and other laws concerning such changes.

In determining whether and what kind of NEPA action is required, the District Ranger will consider the criteria set forth in 40 CFR 1502.9(c), and FSH 1909.15, sec. 18, for determining whether to supplement an existing EIS. In particular, the District Ranger will determine whether the proposed change is a substantial change to the Selected Alternative

as planned and already approved, and whether the change is relevant to environmental concerns. Connected or interrelated proposed changes regarding particular areas of specific activities will be considered together in making this determination. The cumulative impacts of these changes will also be considered.

Most minor changes will not present sufficient potential impacts to require any specific documentation or other action to comply with applicable laws. Some minor changes may still require appropriate analysis and documentation to comply with FSH 1909.15, sec. 18.

Right to Appeal or Administrative Review

This decision is subject to administrative review (appeal) pursuant to 36 CFR Part 215. A written notice of appeal must be filed with the Appeal Deciding Officer:

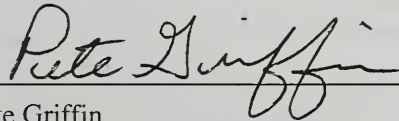
Regional Forester, Alaska Region
U.S. Department of Agriculture, Forest Service
P.O. Box 21628
Juneau, Alaska 99802-1628

The Notice of Appeal must be filed within forty-five (45) days of publication of notice of this decision in the *Juneau Empire*.

In accordance with 36 CFR Section 215.14, it is the responsibility of those who appeal a decision to provide the Appeal Deciding Officer sufficient evidence and rationale to show why the Responsible Official's decision should be remanded or reversed. The written notice of appeal filed must meet the following requirements:

1. State that the document is a Notice of Appeal filed pursuant to 36 CFR part 215.
2. List the name, address, and telephone number of appellant;
3. Identify the decision document by title and subject, date of the decision, and name and title of the Responsible Official;
4. Identify the specific change(s) in the decision that the appellant seeks or portion of the decision to which the appellant objects;
5. State how the Responsible Official's decision fails to consider comments previously provided and, if applicable, how the appellant believes the decision violates law, regulation, or policy and, if applicable, specifically how the decision violates the law, regulation, or policy.

For additional information concerning this decision, contact Laurie Thorpe, Special Use Permit Administrator, Juneau Ranger District, 8465 Old Dairy Road, Juneau, AK, 99801, or call (907) 790-7439.



Pete Griffin
District Ranger



Date

Helicopter Landing Tours on the Juneau Icefield 2003 - 2007

Final Environmental Impact Statement
May 2002

United States Department of Agriculture
Forest Service - Alaska Region

Lead Agency:	USDA Forest Service Tongass National Forest
Responsible Official:	Peter Griffin, District Ranger Juneau Ranger District Tongass National Forest 8465 Old Dairy Road Juneau, AK 99801-8041
For Further Information Contact:	Ellen Hall Foster Wheeler Environmental Corporation 12100 NE 195th Street, Suite 200 Bothell, WA 98011 ehall@fwenc.com

Abstract:

The Forest Service is proposing to approve special use permits for commercial helicopter companies that land on the Juneau Icefield, through 2007, limiting the number of landings to the existing authorized level of 19,039, with limited new landing locations and restrictions on the number of days per week that landings are allowed. This Final Environmental Impact Statement describes the effects of the Proposed Action, the No-Action Alternative, and six action alternatives. The significant issues addressed by the alternatives and the EIS include: 1) noise impacts to residents, 2) noise impacts to recreationists, 3) impacts to wildlife, and 4) impacts in new areas.

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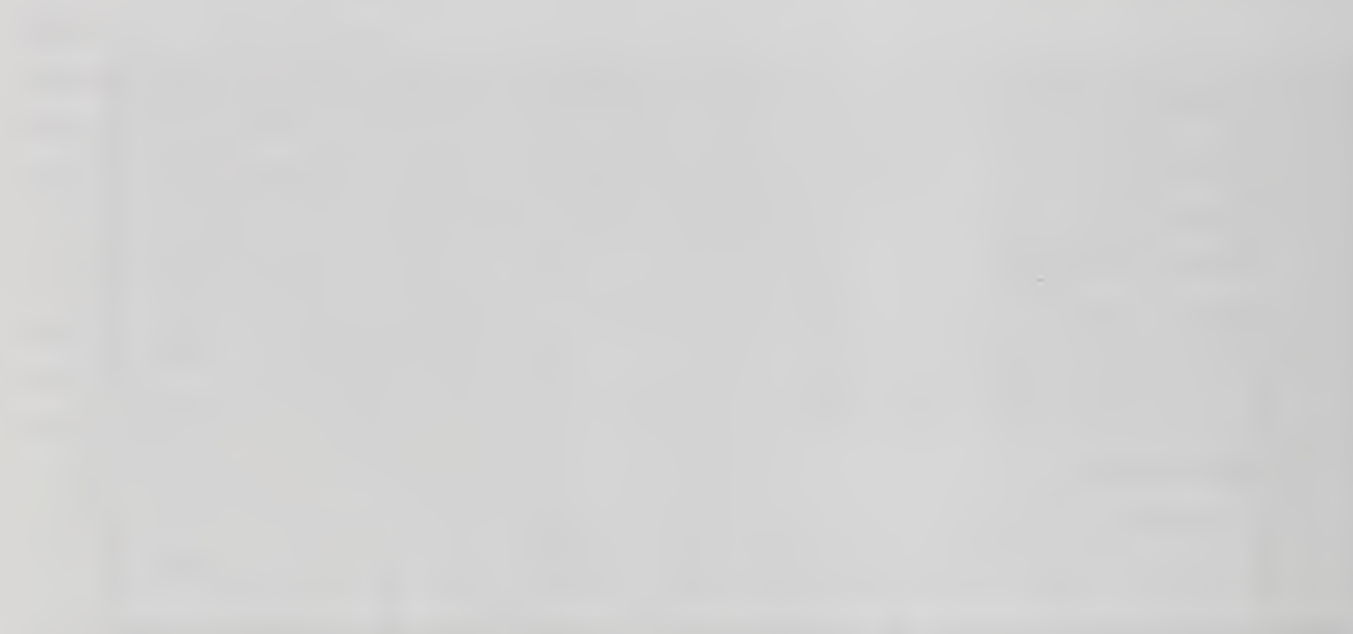
CHAPTER 1

PURPOSE AND NEED

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CHAPTER 1

THEORY OF THE EARTH



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Chapter 1

Purpose and Need

Introduction

Located near Juneau, Alaska, in the coast range mountains of the Tongass National Forest, the Juneau Icefield (Figure 1-1) is the fifth largest icefield in North America. The icefield blankets more than 1,500 square miles of land and stretches nearly 100 miles north to south and 45 miles east to west. Many small glaciers and at least 40 larger valley glaciers feed from this icefield. Snow and ice depths have been estimated to range from 800 to more than 4,500 feet.

The 1997 Tongass Land and Resource Management Plan (TLRMP), hereafter referred to as the "Forest Plan," is one of the primary tools that provides guidance on managing recreation and tourism developments in the Tongass National Forest.

The Juneau Ranger District has received applications from four helicopter companies that want to provide commercial helicopter landing tours on and immediately next to the Juneau Icefield. TEMSCO Helicopters, Inc. (TEMSCO), Coastal Helicopters, Inc. (Coastal), Era Helicopters, Inc. (Era), and NorthStar Trekking, Inc (NorthStar) want the United States Department of Agriculture (USDA) Forest Service to reissue the special use permits under which they currently operate and to permit an increase in helicopter landings. All four of these permits were to expire December 31, 2000, but were extended to cover the 2001 tourist season.

The study area addressed in this environmental impact statement (EIS) is defined on Figure 1-2, Requested Flight Routes and Icefield Landing Sites. It includes the same area analyzed in the previous EIS, prepared in 1995 (Forest Service, 1995), with the following changes: the area north of Gilkey Glacier up to the Haines/Juneau Borough line has been added, Douglas Island has been added, and Wright Glacier (northeast of Taku Inlet) has been deleted. Impacts addressed in this EIS include both impacts on the icefield and impacts on people and wildlife exposed to noise associated with the helicopter tours.

The proposed helicopter access activities being analyzed in this EIS are primarily tourism-based, summer season (May to September) activities, which include the following:

- Icefield landing tours
- Icefield dogsled mushing
- Icefield hiking
- Icefield trekking
- Icefield Nordic skiing tours
- Mechanized snow vehicle expeditions on the icefield
- The helicopter flightseeing and icefield landing tour portions of trips that are combined with a float plane transfer at Antler Glacier Lake

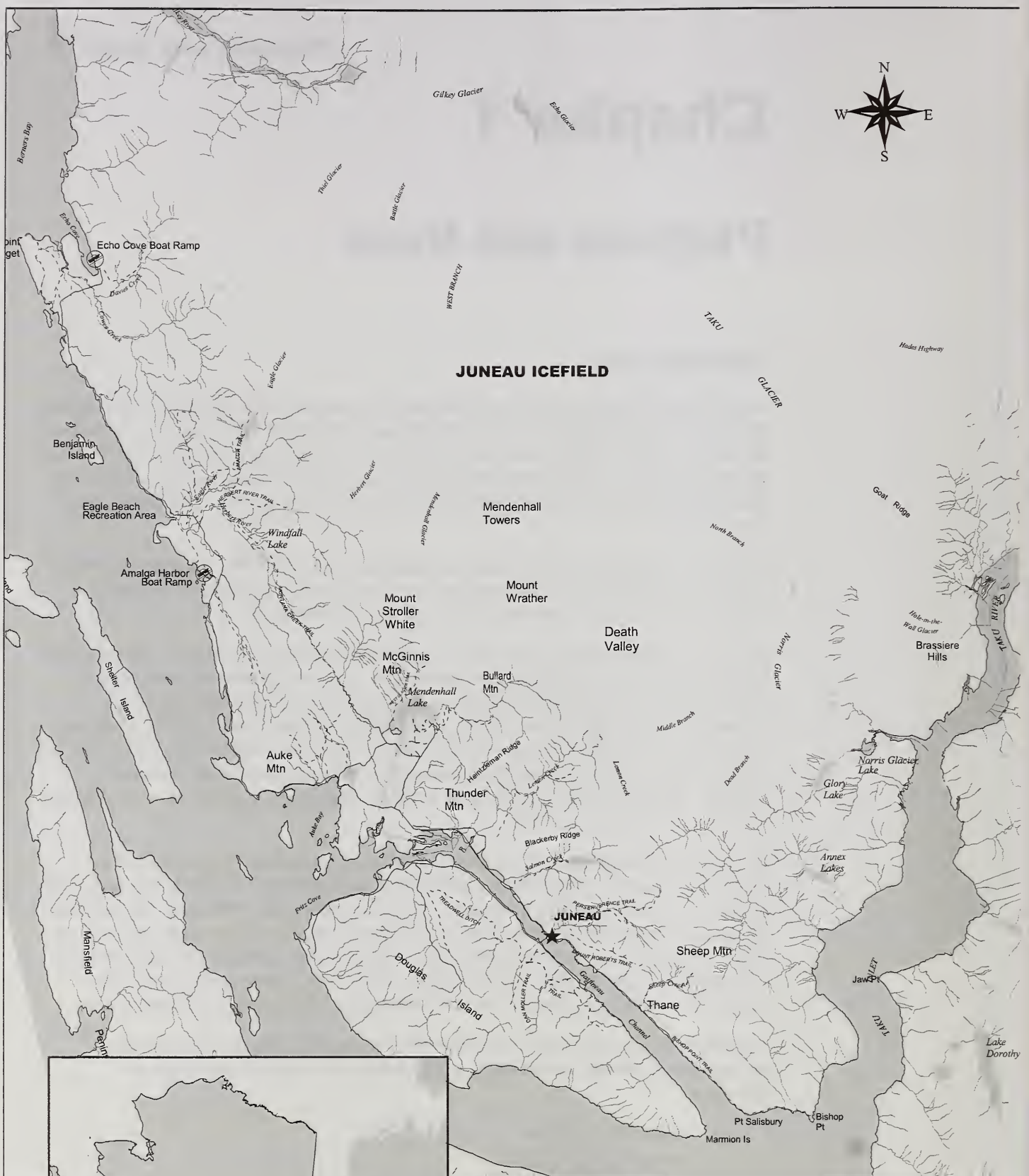
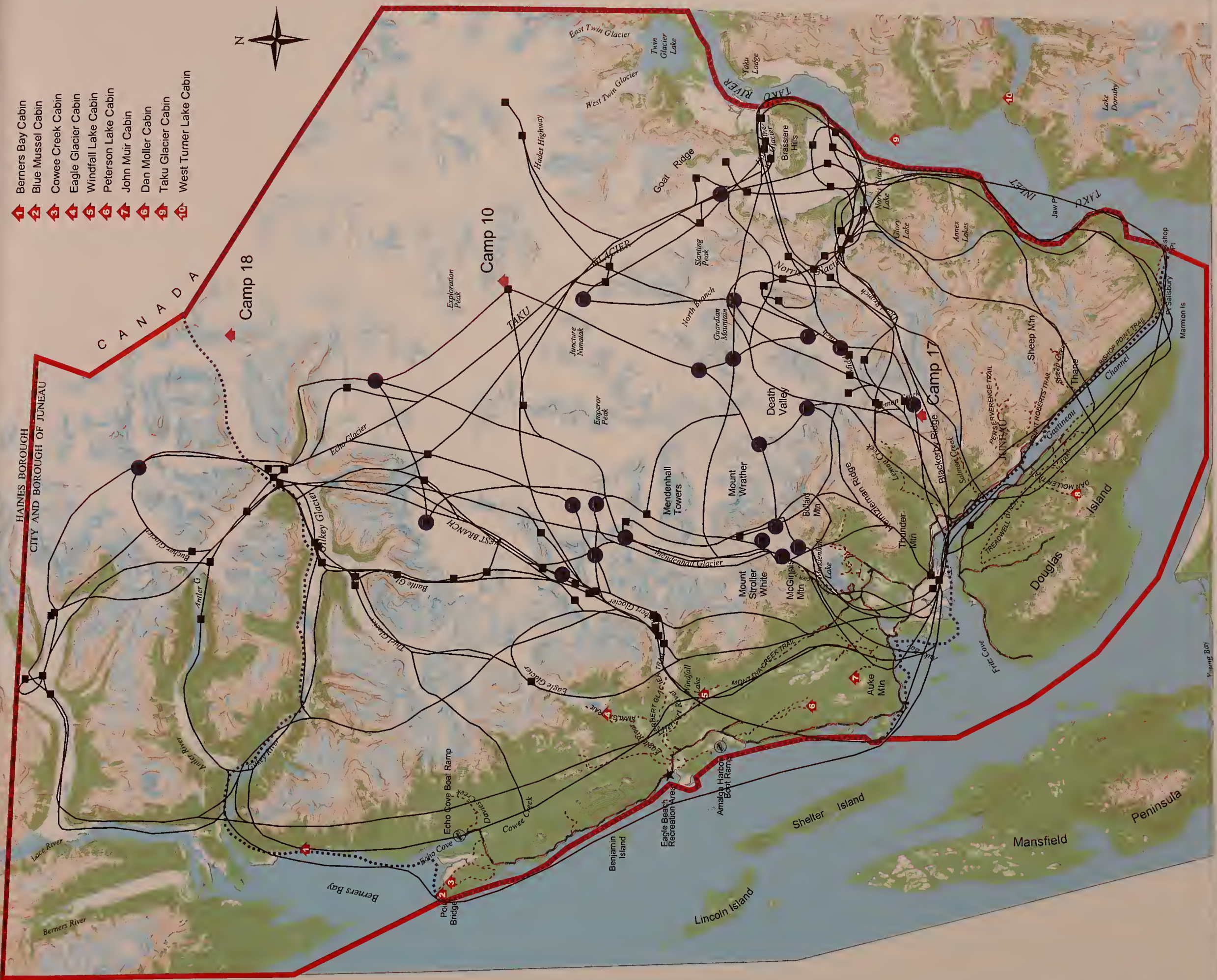


Figure 1-1
Helicopter Landing Tours
on the Juneau Icefield 2001
- Location Map

Juneau, Alaska



- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin

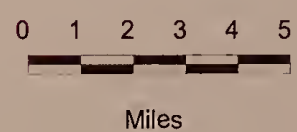
Figure 1-2
Requested Flight Routes
and
Icefield Landing Sites

Juneau, Alaska

- Borough Boundary
- Requested Flight Routes
- Requested Landing Sites
- Requested Minor Developments
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary

Contour Interval 200 feet

Scale 1:300,000





The duration of these icefield activities ranges from a few hours to several days, including overnight camping in temporary facilities. Figure 1-2 indicates sites where overnight camps or other minor developments have been requested (refer to the Glossary in Chapter 5 for the definition of minor development and other terms used in this EIS).

This analysis involves only commercial helicopter landings and associated activities that have been proposed to occur on the actual icefield, on the snow and ice surface of the glaciers, during the summer tourism season (May to September). These proposed activities and their potential impacts are the focus of this EIS.

Several other types of commercial helicopter-access activities have been proposed, but are not addressed in detail in this EIS. Rather, they are addressed in Chapter 4 under the heading *Cumulative Effects*. Activities in this category include non-icefield helicopter landing tours and associated activities (e.g., helicopter-access alpine trekking and camping, rock climbing, interpretive mining tours adjacent to Herbert Glacier, and other activities that are accessed by helicopter but do not take place on the snow or ice surface of the Juneau Icefield, but rather on the adjacent land forms and alpine terrain). These non-snow and ice surface activities are not currently authorized and will be considered in future analyses under the National Environmental Policy Act (NEPA).

Background

Growth History

The number of commercial helicopter landing tours on the Juneau Icefield has grown somewhat proportionately with the increase in cruise ship passengers to Juneau over the last 15 years. According to Juneau Convention and Visitors Bureau (JCVB) statistics (JCVB, 1999), the number of cruise ship passengers increased an average of 10 percent annually between 1982 and 1999. The number of icefield landings has grown an average of 9 percent each year, while the number of service days (the number of helicopter tour passengers) has averaged a 12 percent annual growth. Appendix A provides additional data concerning the growth in both cruise ship passengers and landing tour participants.

Almost all of the helicopter landing tour participants are cruise ship passengers (see Chapter 3 for additional discussion). Of 690,000 cruise ship passengers visiting Juneau in 2001 (JCVB, 2001a), 88,960, or 13 percent, participated in icefield helicopter landing tour activities. Table 1-1 displays the number of landings used by each of the authorized helicopter companies for the past 8 years. In 2001, the 88,960 tour participants were accommodated with 17,783 landings.

NEPA History

The following discussion highlights the history of NEPA analysis and NEPA documents that has governed the issuance of special use permits to the commercial helicopter tour operators and has set limits on operations. Administrative reviews and subsequent special use permit authorizations were based on requests from tour providers to meet the demand for public tours to National Forest System (NFS) lands beginning in 1984.

1984 to 1986

From 1984 to 1986, temporary (annually issued) permits for commercial helicopter landing tours were considered to have no significant environmental impacts. Because of this finding, the permits were authorized under the NEPA Categorical Exclusion analysis.

In 1989, the two companies under permit (TEMSCO and Era) were authorized increased use on Mendenhall Glacier and Norris Glacier. A letter to TEMSCO, signed March 29, 1989, authorized an increase of 10,000 service days for Mendenhall Glacier, bringing the total to 30,000 service days. A decision memo, signed July 27, 1989, authorized the issuance of a multiyear permit to Era, with use capped at the 1987 EA level. All permits

1 Purpose and Need

Table 1-1. Total Number of Icefield Landings by Company - Actual Landings, 1994-2001

Company	1994 ¹	1995	1996	1997	1998	1999	2000	2001
TEMSCO	7,736	7,106	7,986	8,318	8,231	8,252	8,290	8,493
Coastal	54	122	356	731	913	710	585	997
Era	4,003	3,193	4,399	5,445	5,990	6,475	6,185	6,488
NorthStar	-----	-----	-----	-----	821	1,269	1,523	1,805
Total Landings	11,793	10,421	12,741	14,494	15,959	16,706	16,583	17,783
Total Service Days	61,898	55,818	65,770	75,547	84,623	85,174	85,531	88,960

¹ Although the 1995 EIS reports the actual number of landings in 1994 at 11,647 and the 2001 DEIS reports the actual number of landings at 11,881, the Forest Service Actual Use Report shows the figures listed here. Discrepancies are the result of inconsistent reporting and tracking procedures before 1997.

from that time forward to 1995 were issued under the conditions of the 1987 decision notice (DN) and the 1989 letter and decision memo.

A new EA was completed in 1992, but the decision was appealed and reversed. Subsequent permits were issued under the conditions of the 1987 DN.

1987 to 1994

An environmental assessment (EA) was completed in 1987, and the resulting decision, signed March 9, 1987, established management guidelines for helicopter landing tour use of the Juneau Icefield. The DN and finding of no significant impact (FONSI) defined the following 10 zones of the Juneau Icefield, as shown in Figure 1-3.

- | | |
|-----------------------|-------------------|
| 1. Gilkey Glacier | 6. Death Valley |
| 2. Eagle Glacier | 7. Norris Glacier |
| 3. Herbert Glacier | 8. Taku Glacier |
| 4. Mendenhall Glacier | 9. Twin Glacier |
| 5. Lemon Glacier | 10. Flight path |

Zones 10 north and 10 south were designated as flight path zones. Landings were prohibited at Eagle Glacier (zone 2), Death Valley (zone 6), and Twin Glacier (zone 9) primarily in response to public concern to maintain "helicopter landing free zones" for backcountry icefield enthusiasts who did not access the icefield by helicopter. Landings were allocated to each of the other six zones. Most landings during this period, and subsequently, were on the Mendenhall (zone 4) and Norris (zone 7) glaciers.

Mendenhall and Norris were identified as the "high volume" zones, with use capped at 20,000 service days each, where a service day is defined as a day or part of a day on NFS land for which an outfitter or guide provides goods or services, including transportation, to a client. The remaining zones, Herbert, Gilkey, Lemon and Taku, were "low volume" zones at 3,000 service days each.



1 Purpose and Need

1995 to 1999

An EIS addressing helicopter landing tours and icefield activities within the study boundary, shown on Figure 1-2, was completed during 1994. This analysis used the same zones identified in the 1987 EA to evaluate use levels, but changed the unit of measure from number of service days to number of landings. On March 17, 1995, the record of decision (ROD) for the 1995 Helicopter Glacier Tours Final EIS was signed. Five appeals were filed. The NEPA decision was upheld on four of the appeals. On the fifth appeal, the part of the decision that authorized issuance of permits to specific companies was reversed, but the portion stipulating the maximum numbers of landings to be authorized was affirmed. Special use permits were issued to three helicopter companies, TEMSCO, Era, and Coastal, within the limits identified in the 1995 ROD. The 1995 decision allowed gradual increases in the number of landings from 1995 through 1997, then capped the authorized number of landings at 19,039 from 1997 through 1999.

In 1997, the helicopter companies began working in partnership with other outfitters and guides to offer participatory activities in conjunction with the helicopter icefield landing tours. It began with guided dogsled mushing on the icefield in 1997 and has grown to include guided snow and ice trekking. These tour options have been very popular with cruise ship passengers, and interest in providing more participatory activities has grown. The additional landings needed for the mobilization, maintenance, and demobilization of these activities have been within the maximum number of landings allowed in the 1995 ROD.

Until 1998, the number of landings allocated to the three tour companies was less than the maximum allowed under the 1995 ROD (19,039). In 1998, a fourth company, NorthStar, asked for the 1,787 remaining landings that were not allocated to other companies. All 19,039 landings have been allocated annually since then.

In August 1999, the Forest Service amended three of the four special use permits for commercial helicopter landings on the Juneau Icefield to allow pilots to divert commercial tours to alternate landing sites when there are adverse weather or snow conditions that could compromise the safety of pilots and visitors. The total number of landings in the existing permit authorizations could not be increased, and operators were expected to use substantially similar routes when diverting to alternate landing sites to avoid shifting impacts and to avoid conflicts with other operators. This amendment has been carried forth with the subsequent permit amendments each year for continued operations.

Based on annual reports required from each company, the actual number of landings from 1998 to 1999 averaged 85 percent (16,269) of the allocated landings (19,039).

2000 and 2001

On December 22, 1999, the four special use permits were extended for an additional year, expiring December 31, 2000. On November 17, 2000, these permits were extended for a second year, expiring December 31, 2001, under the conditions and limitations in the 1995 ROD (19,039 landings).

Activities currently being offered for the 2001 season include helicopter flightseeing tours combined with the following:

- Landing tours where clients are outfitted and guided to walk, photograph, hike or trek on, and explore the glacial environment
- Landing tours combined with a dogsled tour

The majority of these tours range from 2 to 4 hours including the flightseeing part of the tour; a very few are overnight, 1- to 3-day treks.

Purpose and Need

The purpose and need for the Proposed Action are to meet public demand for quality, outfitter-guided services that provide safe helicopter access to remote locations on the Juneau Icefield. Meeting this demand includes providing for visitor safety and an appropriate balance between commercial, guided recreation opportunities and noncommercial, nonguided recreation opportunities while minimizing impacts to people and resources.

The Forest Plan contains goals and objectives for management of NFS land. Activities associated with the Proposed Action are located within areas that have been assigned three different land use designations (LUDs): Remote Recreation, Semi-Remote Recreation, and LUD II. Figure 1-4 shows these and other LUDs in the vicinity of the Proposed Action.

Management prescriptions for the three LUDs incorporate the recreation and tourism forest-wide standards and guidelines for management of major and minor recreation special uses. These management prescriptions direct Forest Service managers to do the following:

Work with recreation service partners and the tourism industry in identifying and developing services and opportunities ... that supplement the use and enjoyment of the national forests by a variety of people. ... authorize commercial recreational developments and services where there is a public need, and no private lands are available or suitable for development.

The popularity of helicopter flightseeing and icefield expeditions has been documented in a recent survey by Crystal Cruises (Crystal Cruises, 2001). Of the 19,000 respondents to the 2000 post-cruise survey, the shore tours in Alaska earned the highest ratings of its worldwide programs. The company's press release cites Adam Leavitt, Crystal Cruises' senior vice-president for marketing, as follows: "All of our excursions in other destinations win high marks from our guests, but the Alaska tours consistently rate above all others. This is particularly noteworthy given that our summer Alaska cruises carry guests of such a wide age range, from young children to seniors, and of varying fitness levels."

Although Alaska cruises make up only about 15 percent of the company's sailings, Crystal's top five highest-rated tours were all Juneau-based activities; four of the top five included helicopter icefield tours.

1. Helicopter Glacier Trek (Juneau)
2. Hike and Float the Chilkoot Trail (Juneau)
3. Pilot's Choice Glacier Explorer by Helicopter (Juneau)
4. Mendenhall Glacier Helicopter Adventure (Juneau)
5. Champagne & Glaciers by Helicopter (Juneau)
6. Tatoosh Island Sea Kayaking Adventure (Ketchikan)
7. Chilkoot Trail and Glacier Helicopter Flightseeing (Skagway)
8. Taku Glacier Lodge by Floatplane (Juneau)

1 Purpose and Need

9. Misty Fjords Seaplane Exploration (Ketchikan)
10. Historical Sitka and Nature Walk (Sitka)

In a 1999 Helicopter Access Customer Survey, 32 percent of helicopter passengers felt their tour did not have an environmental impact (McDowell Group, Inc., 1999). Of this group, 66 percent thought they were informed or very informed about global environmental issues. When asked if the number of helicopter glacier landing permits should increase, maintain the same, or decrease, 18 percent said they should increase, 2 percent said they should decrease, and 80 percent said they should be maintained at current levels. The survey also revealed that 78 percent of the tour participants felt the experience of being in a helicopter greatly contributed to their decision to take a tour, compared to 97, 93, and 73 percent who listed scenic viewing, landing on a glacier, and glacier activities as important to their decision to take a tour, respectively. Of note, 74 percent of the passengers did not know they would be visiting the Tongass National Forest before taking the tour. Participants first became interested in an Alaskan glacier experience through marketing efforts by the cruise ship (40 percent) and on the recommendation by friends or relatives (40 percent).

Proposed Action

The Forest Service proposes to authorize commercial helicopter landing tours on the Juneau Icefield from 2003 through 2007 as described below. The authorizations would involve one or more special use permits for a total maximum allocation of 19,039 landings. Unlike the actions authorized under the 1995 Helicopter Glacier Tours EIS (1995 EIS), this Proposed Action does not allocate landings by zone. Allocations and distribution of the limited number of landings would be made through a prospectus and bid award process, which will follow issuance of the ROD.

Another change from the 1995 EIS is the definition of the season covered by permits. In the 1995 EIS for helicopter landing tours on the Juneau Icefield, the primary use season was identified as May 15 through September 15. This definition of the primary use season took into account the capacities of the sites and the time period during which visitor numbers are high enough to adversely affect the visitor recreation experience, natural resources, or the community. As noted earlier, the majority of clients participating in the helicopter landing tours are cruise ship passengers. The cruise ship schedules indicate that May 1 is now the traditional "first cruise ship arrival" day, and that a growing number of ships arrive during the last half of September. Considering this trend, the primary use season for this EIS will be inclusive of May 1 through September 30.

The proposed helicopter landing tours would consist of 30- to 90-minute flightseeing tours in a helicopter from a heliport near sea level to a glacier in the Juneau Icefield. The helicopter would land so passengers could walk near the helicopter on the glacier accompanied by a guide describing glacial phenomena. Longer, multi-day tours with participative activities in the icefield environment are proposed as well. Some of the tour companies that transport large numbers of passengers minimize helicopter costs by dropping off new passengers on the icefield and immediately loading earlier passengers for the return trip to the heliport. Most tours are offered between May and September. The landing sites and probable flight routes being considered for the Proposed Action are shown on Figure 1-5.

While commercial landing tours on the Juneau Icefield itself fall under the jurisdiction of the Forest Service, helicopter flight activities and the nonlanding aspects of the tours fall under the jurisdiction of other agencies. These agencies include the Federal Aviation Administration (FAA), City and Borough of Juneau (CBJ), U.S. Fish and Wildlife Service

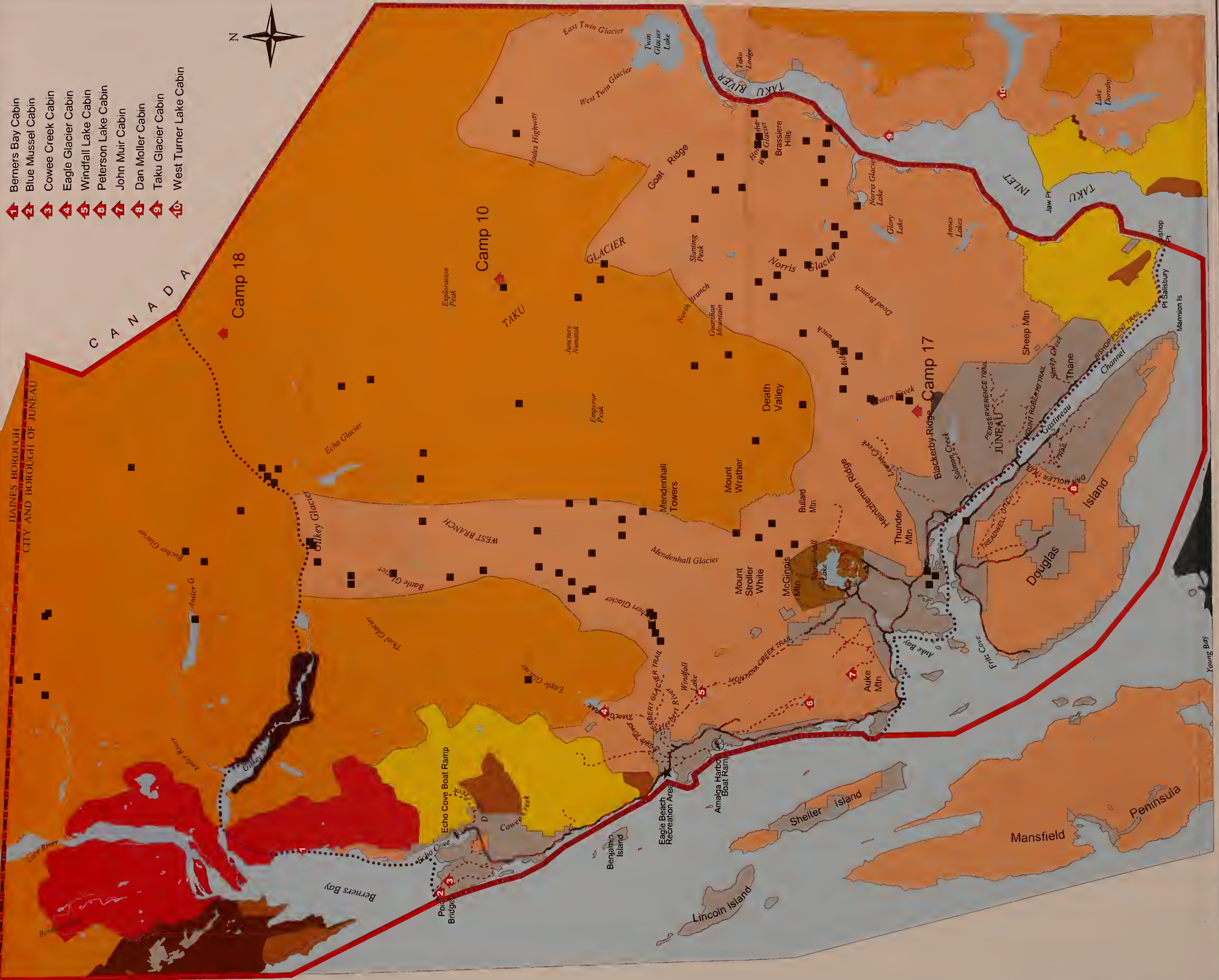
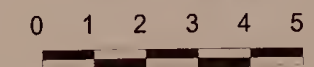


Figure 1-4
Land Use Designations (LUDS)
and
Requested Icefield Landing Sites
Juneau, Alaska

- Borough Boundary
- Requested Landing Sites
- ▲ Juneau Icefield Research Camps
- ▲ Cabins - FS and State
- ... Trails
- Roads
- ... 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary
- Land Use Designations**
- LUD II
- Special Interest Area
- Modified Landscape
- Municipal Watershed
- Non-NFS Lands
- Old-growth Habitat
- Remote Recreation (Primitive ROS)
- Scenic Viewshed
- Semi-remote Recreation (Semi-Primitive Motorized ROS; can be Roded Natural/Rural ROS at minor developments)
- Water
- Wild River
- Wilderness Monument

Contour Interval 500 feet

Scale 1:300,000



Miles





- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin

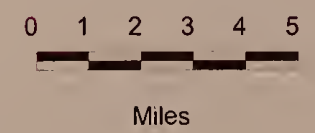
Figure 1-5
Proposed Action Flight Routes
and
Icefield Landing Sites

Juneau, Alaska

- Borough Boundary
- Proposed Action Flight Routes
- Proposed Action Landing Sites
- Requested Minor Developments
- ▲ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- Trails
- Roads
- 1995 EIS Boundary
(Existing area of operations)
- 2003-2007 EIS Boundary

Contour Interval 200 feet

Scale 1:300,000



(USFWS), National Marine Fisheries Service (NMFS), and Alaska Department of Fish and Game (ADF&G). These jurisdictions are described under the heading *Laws, Statutes, and Ordinances* later in this chapter.

Because only a limited number of existing helibases are available in the Juneau area, activities described as part of the Proposed Action assume that permittees will operate from helibases and use flight paths similar to those used during the 2001 operating season. Figure 1-5 displays the flight routes and landing sites for all of the activities associated with the Proposed Action. The A-Star helicopter, which can carry up to six passengers and one pilot, is the aircraft currently preferred by tour companies because of its carrying capacity and quiet technology. Until more advanced technology becomes available and affordable, it is likely that the A-Star will continue to be the most widely used helicopter.

Helicopter tour companies could operate out of any of five existing different helibase locations:

1. TEMSCO's helibase is at the northeast end of the Juneau Airport runway.
2. Coastal's helibase is near the midpoint of the Juneau Airport runway on the northeast side.
3. NorthStar's helibase is near the northwest end of the Juneau Airport runway.
4. Era's helibase is on the west side of Gastineau Channel at approximately mile 4 on North Douglas Highway.
5. Era's other helibase is at the northeast end of the Juneau Airport runway near the Fire Hall.

Figure 1-6 shows the helibase locations and the 3-mile radius around the airport known as the Airport Influence Zone. Within this zone, the FAA, in cooperation with CBJ, has direct control over aircraft flight paths. They do not have authority over aircraft noise within this influence zone. If CBJ were to approve a noise ordinance, however, it would require FAA concurrence.

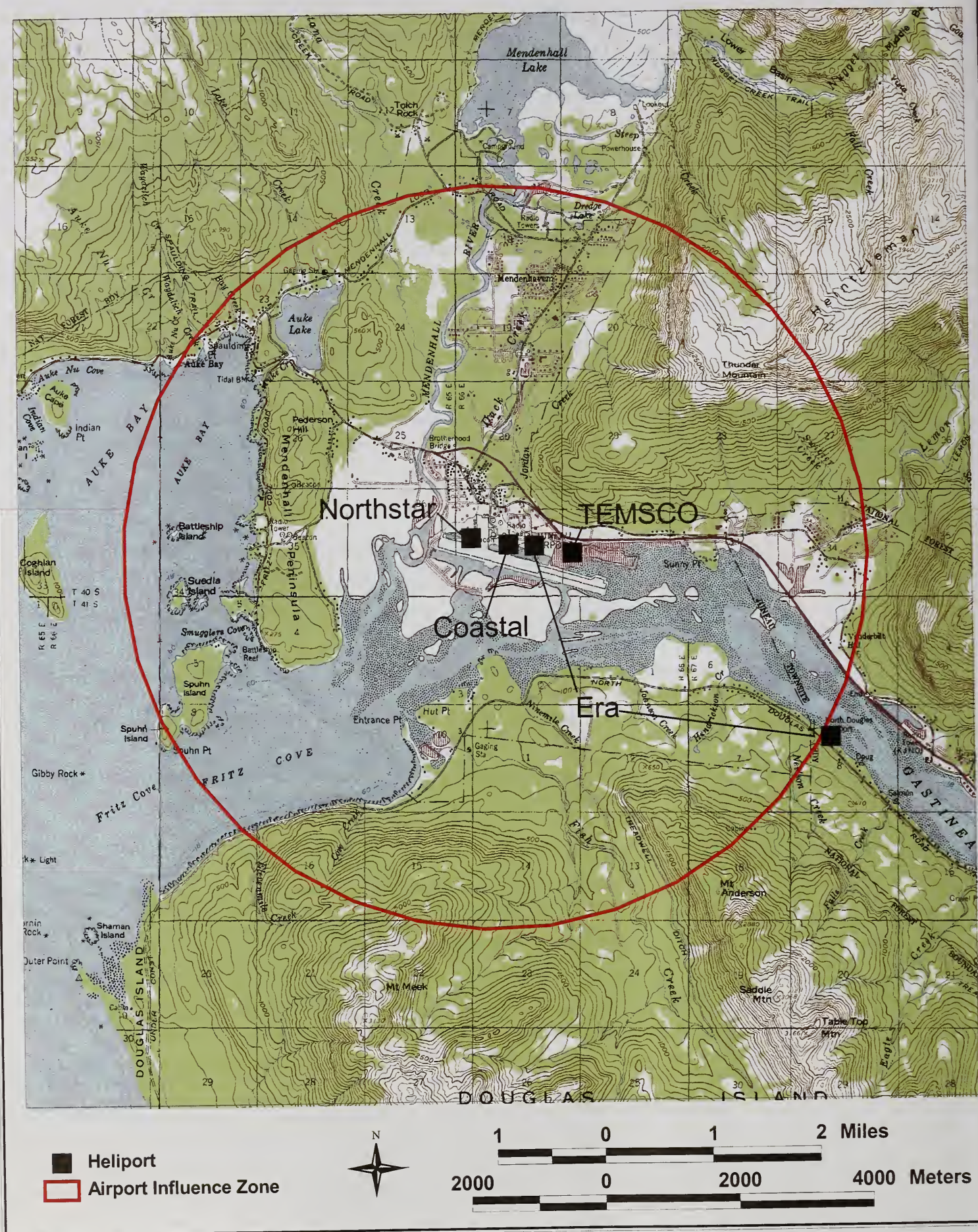
The Proposed Action includes helicopter landings on the icefield that could be authorized in conjunction with any of the following types of activities. All activities included in the Proposed Action require helicopter landings on the icefield, and one includes a fixed-wing landing on Antler Glacier Lake.

- The helicopter flightseeing and icefield landing tour portions of trips to Antler Glacier combined with a float plane flightseeing tour and landing at Antler Glacier Lake.¹

¹ Antler Glacier Lake proposal: This tour would involve the departure of both a floatplane and a helicopter from the Juneau Airport. Both aircraft would take passengers on separate flightseeing tour journeys to an exchange point at Antler Glacier Lake. The fixed-wing flight would fly along the shoreline to Berners Bay and up Antler River Valley, and would land on the east end of Antler Glacier Lake. The helicopter, taking a flight route over the Juneau Icefield, would land on the upper area of Antler Glacier and allow the passengers to walk on the snow and ice surface, then continue on with the passengers to the rendezvous point at Antler Glacier Lake. The helicopter passengers would transfer to the floatplane, and the floatplane passengers would transfer to the helicopter. The helicopter would then depart for a flightseeing tour over the Juneau Icefield and a glacier landing experience before returning to the heliport. The floatplane would depart Antler Glacier Lake for the flightseeing tour over Berners Bay and the saltwater shoreline back to the airport.

This NEPA document, *Helicopter Landing Tours on the Juneau Icefield 2003-2007*, is analyzing the fixed-wing flights and landings on Antler Glacier Lake, and the flight portion of the helicopter landing at Antler Glacier Lake for the purpose of analyzing the effects of this combination fixed-wing/helicopter tour. Before authorization could be made for this tour, ground disturbing elements of the Antler Glacier Lake proposal would have to be analyzed in a separate NEPA document because the level of required review is outside the scope of this analysis. Ground disturbance (non-ice and snow surface) could occur in the areas where the clients would get off the floatplane and transfer to the helicopter, and vice versa, and are therefore outside the scope of this document. The separate analysis would involve site-specific reviews by plant and wildlife biologists for the ground disturbance from helicopter and fixed-wing aircraft impacts, as well as the human impacts to resources on the shoreline at the east end of Antler Glacier Lake.

Figure 1-6 - Heliport Locations and Airport Influence Zone



Most of the tours described above would occur during the primary use season, May 1 through September 30. Some use would occur in the shoulder season, April and October, as the industry has shown a trend of use earlier and later in the summer tourism season.

The duration of these landing tours would range from about 90 minutes to several days, including overnight camping in temporary facilities that would accommodate outfitters, guides, and clients. Based on weather, seasonal site conditions, and safety considerations, the locations of some activities may vary, but would remain in the same general vicinity.

The number of helicopter landings, whether they involve the typical landing tours or the combination with other types of activity, would be limited to 19,039. The type of activity, where the activity is conducted, and the number of times per day the activity can occur would be managed in accordance with the Forest Plan's standards and guidelines identified for the different LUDs in the analysis area. These standards and guidelines are discussed later in this chapter under the section *Management Direction*.

Decision to be Made

The Juneau District Ranger is the official responsible for the decision to be made. The decision to be made is whether or not to issue special use permits for helicopter landing tours on the Juneau Icefield and, if issued, the authorized locations, levels of use, and types of activities covered under the permit(s). The Juneau District Ranger will also determine any mitigating measures that will be required.

Scoping and Public Involvement

The Notice of Intent (NOI) to prepare an EIS was published in the Federal Register February 19, 1999. This NOI identified a permit period from 2000 to 2004. A revised NOI was published March 24, 2000. It redefined the proposed permit period to extend from 2001 to 2005.

Public involvement and comments from the 1987 and 1992 EAs, the 1992 appeal, and the 1995 Final EIS/ROD and appeals were used in the development of the Proposed Action described above and were considered in this analysis.

In 1991 and 1992, during preparation of the EA, the Forest Service asked for public input on the Proposed Action by mailing letters to the public and placing paid advertisements in the *Juneau Empire*. Seventeen letters, 21 telephone calls, and 3 visits were received in response to this request for input.

During preparation of the 1995 EIS, the Forest Service asked for public input on the Proposed Action by mailing letters to the interested public, placing a paid advertisement in the *Juneau Empire*, and soliciting input from Forest Service staff and specialists. Thirty-five letters, 17 telephone calls, and 1 visit were received in response to the request for input. In December 1994, the Draft EIS (DEIS) was mailed to 160 individuals, organizations, and agencies, and 150 were handed out at the Juneau Ranger District Office. Responses totaling 115 were received.

In 1999, scoping was initiated for this EIS. On February 4, 1999, scoping letters were mailed to the public, including individuals, organizations, and agencies. The NOI was published in the Federal Register February 19, 1999. Newspaper ads for the scoping efforts were run in the *Juneau Empire* February 23, 24, and 25, 1999. Approximately 50 people attended an open house scoping meeting held at the Juneau Ranger District February 25, 1999. Approximately 120 letters were received during the formal scoping

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period, which ended March 9, 1999. The Forest Service continued to receive additional comments and considered them in this analysis and the final decision.

For a number of reasons, including delays in completing a noise study, the Forest Service was not able to complete a new EIS in time for the 2000 operating season. In January 2000, a letter was sent to 334 individuals, including all of the 1995 EIS recipients, and other parties who expressed interest, notifying them that the special use permits for the helicopter landing tours were extended for 1 year through December 31, 2000. An NOI was published in the Federal Register March 24, 2000, to reflect this extension.

On November 17, 2000, the Forest Service extended the special use permits for another year through December 31, 2001, pending completion of this new EIS.

Availability of the Draft EIS was announced in the Federal Register on August 10, 2001, with a due date for public comments listed as September 24, 2001. A public meeting held in Juneau on September 6, 2001, was attended by approximately 72 people, 11 of whom made oral comments on the DEIS.

On September 21, 2001, the due date for comments was extended to October 1, 2001. Written comments included 84 e-mails, 57 letters, 17 comment forms, and 2,086 formatted, pre-addressed comment cards from people who participated in helicopter landing tours during the comment period. In total, there were approximately 3,167 individual comments submitted in 2,255 oral or written statements.

Significant Issues

Significant issues are unresolved conflicts or disputes regarding the effects of the Proposed Action that, because of their extent, duration, or intensity, are used to formulate alternatives to the Proposed Action, prescribe mitigation measures, and/or serve as the focus for a comparison of environmental effects between alternatives. The following were determined to be significant issues to be addressed in this EIS. These significant issues were identified from public and agency comments regarding the Proposed Action.

Issue 1: Noise Impacts to Residents

The noise of helicopters during flights could affect the quality of life for residents in many areas including the following: Mendenhall Valley, vicinity of Fred Meyer, Auke Bay, Herbert River Road, Juneau Airport, Lemon Creek, Back Loop Road, West Juneau, downtown Juneau, Gastineau Channel, Thane Road, Bonnie Brae, Fritz Cove Road, Douglas, North Douglas, and residential areas near the Era heliport on Douglas Island. Current complaints from residents have common themes regarding the specific aspects of the noise generated from the commercial helicopter flights:

- The hours of operation are too long and do not provide any quiet time during the day
- The number of helicopters traveling together causes people to feel overwhelmed by the event
- There are no days of the week that people can experience quiet
- The helicopters fly too low and do not abide by the minimum altitude guidelines, especially during poor weather and low cloud ceiling conditions

The following units of measure will be used to compare alternatives related to this issue:

- Numbers of and frequency of flights
- Hours of operation
- Days of week of operation

Issue 2: Noise Impacts to Recreationists

Flights could cause noise disturbance to ground-based recreation users of Forest Service recreational cabins and the Juneau road system backcountry trails and alpine areas, both on and off NFS land. Responses to scoping indicate that some people believe that, while they are involved in a recreational activity in a typically quiet setting, hearing helicopters is a negative impact to their recreation experience, especially on West Glacier, Montana Creek, Eagle River, Herbert Glacier, Peterson Lake, Spaulding Meadows, Windfall Lake, Auke Nu, Salmon Creek Road, Point Bishop, Dupont, and Sheep Creek trails; Blackerby Ridge and Heintzleman Ridge routes; Bridgett State Park and cabins and trails; and Eagle, Windfall, John Muir, and Berners Bay Forest Service cabins.

The following units of measure will be used to compare alternatives related to this issue:

- Proximity of flight paths to the above locations
- Frequency of flights
- Hours of operation
- Days of week of operation

Issue 3: Impacts to Wildlife

Concerns were expressed that helicopter tours could stress wildlife species, particularly mountain goats, bears, wolves, moose, bald eagles, and seals at haul-outs near flight routes, landings, and tour activities. The concern is that the stress from helicopter activity would cause habitat abandonment or long-term population declines. The primary concern is that wildlife may be negatively affected by the noise and sightings of helicopters.

The following units of measure will be used to compare alternatives related to this issue:

- Proximity of flight paths to known critical wildlife habitat
- Frequency of flights
- Hours of operation

Issue 4: Impacts in New Areas

Helicopter flights and tours could affect the experience of ground- and water-based recreation users and wildlife in the Berners Bay, Antler Glacier, Antler Glacier Lake, Eagle Glacier, and Death Valley areas. Many individuals who commented expressed concerns that allowing new tours in these areas would adversely affect their recreational experience and wildlife by the addition of noise and people.

The following unit of measure will be used to compare alternatives related to this issue:

- Whether landing tours are permitted in these areas or not

Management Direction

1997 TLRMP

The Forest Plan provides the land management direction for the Tongass National Forest. Forest Plan LUDs for the project area are displayed on Figure 1-4. These LUDs and the corresponding management prescriptions direct what, where, and how much proposed activity the Forest Service can authorize.

The Forest Plan contains many forest-wide standards and guidelines that apply to all LUDs on NFS land. Chapter 4 of the Forest Plan addresses these specific standards and guidelines for recreation and tourism; subsistence; threatened, endangered, and sensitive

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species; and wildlife habitat planning as they apply to protection and management of different forest resources. These forest-wide standards and guidelines are used in conjunction with the additional standards and guidelines included within each management prescription for individual LUDs. All authorized activities must be consistent with the Forest Plan.

The following elements summarize the forest-wide standards and guidelines as they apply to the proposed helicopter landing activities. The full text of the standards and guidelines appears in Appendix B.

Threatened, Endangered, and Sensitive Species and Other Wildlife Forest-wide Standards and Guidelines

Management directions from the Forest Plan that directly address the issue of helicopter tour impacts on wildlife include the following:

- Meet the requirements of the ESA, as amended, including assessing potential impacts to Steller sea lions and humpback whales.
- Conserve and manage Alaska Region Forest Service sensitive species, including trumpeter swans. Avoid disturbance of trumpeter swans, particularly during nesting and brood rearing.
- Provide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable introduced species and keep them well distributed in the planning area. (Consult 36 CFR 219.19 and 36 CFR 219.27.)
- Provide for the protection and maintenance of harbor seal and Steller sea lion habitats.
- Maintain or enhance wetland habitats that receive significant use by waterfowl and shorebirds.
- Conduct activities to avoid or minimize disturbance to habitats within the forest, riparian, and estuarine areas (important nesting, brooding, rearing, and molting areas) for Vancouver Canada geese, sandhill cranes, or trumpeter swans.
- Provide for long-term productivity of mountain goat habitat and viability of populations, both native and introduced. Where feasible, locate facilities, camps, and other developments 1 mile or more from important wintering and kidding habitat. If the 1 mile or more distance cannot be achieved, mitigate possible adverse impacts by seasonally restricting or regulating human use, and by implementing other site-specific mitigation measures.
- Forest Service permitted or approved aircraft flights (fixed-wing and helicopter) should maintain a 1,500-foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. Where feasible, flight paths should avoid known mountain goat kidding areas from May 15 through June 15. Pilots will not compromise safety.
- Coordinate other resource management activities to maintain or improve habitat conditions for moose.

Recreation and Tourism Forest-wide Standards and Guidelines

The forest-wide standards and guidelines for recreation and tourism, as they apply to the proposed helicopter landing activities, include the following:

- Work with recreation service partners and the tourism industry in identifying and developing services and opportunities. Recreation service partners provide services and opportunities that supplement the use and enjoyment of the national forests by a variety of people.
- Authorize commercial recreational developments and services where there is a public need, and no private lands are available or suitable for development. Refer to each LUD management prescription to determine its appropriateness for development.
- Work with recreation service partners to provide agency identity, customer information and programs, natural resource education, and to instill a land stewardship ethic.
- Use the major and minor development guidelines (see Appendix B) in addressing the appropriateness of recreation special use proposals in each of the LUDs.
- Conduct activities in a way that minimizes adverse impacts to popular or highly valued local areas with outfitter/guide operations.
- Generally allocate no more than one-half the appropriate capacity of the LUD to outfitter/guide operations on an administrative area basis. (Note, however, that because the icefield is difficult to access and icefield travel can be dangerous, guides are much more common on the icefield than in many other areas).
- For specific locations, consider different allocations based on historical use, changing demand, spatial zoning, or temporal zoning.

Due to their temporary nature and single purpose, all enclaves addressed in this document are considered “minor developments,” as opposed to “major developments,” such as resorts and lodges, gas stations, and full service campgrounds. Enclave developments of recreation and tourism activities, such as dogsled mushing camps, cross country ski trails with simple facilities, and temporary or portable camps, could therefore occur, on a case-by-case basis, in both the Semi-Remote and Remote Recreation LUDs. Enclaves would not be allowed in LUD II areas.

Recreation opportunity spectrum (ROS) guidelines for each LUD (see Appendix B) identify general use limits on numbers of landings and people. Enclaves will be addressed on a case-by-case basis to determine the appropriate size, location, and number that may occur.

Table 1-2 addresses the maximum amount of use for each facility or site in each LUD, as put forth in the Forest Plan.

Standards and Guidelines Specific to this EIS

The proposed icefield landing sites and probable flight paths shown on Figure 1-5 represent the general vicinity for landing activities. Site-specific conditions will be monitored by the Forest Service and evaluated to ensure the safety of the outfitters and guides and the customers they serve, as well as to ensure the protection of the icefield environment.

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Table 1-2. Maximum Recreation and Tourism Development Generally Allowed by LUD¹

LUD	Number of overnight guests	Number of users per day	Number of landings per site per day
Remote Recreation	10	24	10
Semi-Remote Recreation	24/150 ²	50/300 ²	10/100 ²
LUD II	24	50	10

¹ The actual numbers authorized could be larger or smaller depending on site-specific analysis.

² The first number is for most areas within the LUD and the second is for enclaves of recreation and tourism developments.

Source: Forest Plan, 1995 (page 4-40). See also Appendix B of this document.

Toward that end, the Forest Service has adopted specific standards and guidelines with respect to the recreational experience on the Juneau Icefield. These standards and guidelines are as restrictive or more restrictive than Forest Plan requirements. This section describes those standards and guidelines and the recreational experiences they are designed to support. The analysis is based on the following assumptions:

- The number of helicopter landings is the primary factor limiting the number of people who can participate in icefield activities.
- One helicopter can carry up to six passengers (not counting the pilot/guide).
- One helicopter or six people is counted as one group encounter.
- Pilots and guides are not counted in the total number of people allowed on site.
- Aircraft overflights are not considered an encounter.
- The traditional means of access for tourism activities on the Juneau Icefield is by helicopter, which is allowed in all the affected LUDs.

Table 1-3 establishes, for the Juneau Icefield, the maximum number of helicopter landings and people allowed at various LUDs and types of sites. As noted in the footnote to the table, these maximums are as restrictive or more restrictive than the Forest Plan guidelines (Appendix B).

Forest Plan compliance and clarification of numbers of landings and people allowed at landing sites

LUDs indicate different management prescriptions that direct us to manage for particular and different recreation opportunities in a range of Recreation Opportunity Spectrums (ROSSs), ranging from Primitive to Urban. This FEIS has no alternatives that conflict with the prescribed ROS for any LUD. The minor developments (e.g., enclaves such as dogsled mushing camps) do not exceed the number of landings, encounters, and people at one time per site per day as identified in the Forest Plan standards and guidelines for the LUDs and their corresponding ROS. All alternatives addressed in this EIS have a more restrictive element at enclave sites that limits landings and people allowed at one time (20 helicopters, 120 people) to a level lower than what the Forest Plan standards and guidelines allow (100 helicopters, 600 people).

Helicopter landing tour sites in LUD Remote Recreation/ROS Primitive must be a minimum of 3 miles away from any other landing use sites. Occupancy of any site is a key factor here, such that a helicopter landing tour (with up to 3 helicopters and 18 people) may occur at a given site, and once vacated, another helicopter landing activity

Table 1-3. Maximum Recreation and Tourism Development Allowed by LUD on the Juneau Icefield

LUD	Minimum distance (or physical barrier) to another authorized activity per site	Maximum number of helicopter landings and people allowed per site per day	Maximum number of helicopter landings and people allowed per site at one time	Acceptable ROS experience	Maximum allowed group encounters per day
Remote Recreation	3-mile minimum distance between occupied sites	10 landings/day 60 people/day	3 helicopters at one time; 18 people at one time.	Primitive	2 groups. No more than 3 groups in a day.
Semi-Remote Recreation	½-mile minimum distance between occupied sites.	10 landings/day 60 people/day	10 helicopters at one time. 60 people at one time.	Semi-Primitive Motorized	9 groups. No more than 10 groups in a day.
Semi-Remote Recreation with Enclave(s)	½-mile minimum distance between occupied enclave sites.	100 landings/day 600 people/day	20 helicopters at one time; ¹ 120 people at one time. ¹	Roaded Natural ¹	19 groups. ¹ No more than 20 groups (of up to 6 people) per day may use the site. ¹

¹ Based on the assumptions listed above and Forest Plan standards and guidelines, there could be up to 100 helicopter landings at one time (up to 600 people at one time) at an enclave site. This FEIS establishes a more primitive ROS at enclave sites than the Forest Plan allows, and thus fewer numbers of helicopters and people are allowed at one time at the enclave sites. These parameters are more restrictive than Forest Plan guidelines.

can take place at or near (within 3 miles of) the site, as long as there are no more than three helicopters and no more than 18 people within site or sound of each other at any one time. Further, there may be no more than a total of 10 landings and 60 people per day at any one landing site (3-mile radius). This meets the objectives of LUD Remote Recreation and setting indicators for ROS Primitive (Appendix B).

Helicopter landing tour sites in LUD Semi-Remote Recreation/ROS Semi-Primitive must be a minimum of one-half mile away from any other landing use sites. Occupancy of any site is a key factor here, such that a helicopter landing tour (with up to 10 helicopters and 60 people) may occur at a given site and once vacated, another helicopter landing activity can take place at or near (within one-half mile of) the site, as long as there are no more than ten helicopters and no more than 60 people within site or sound of each other at any one time. Further, there may be no more than a total of 10 landings and 60 people per day at any one landing site (0.5-mile radius). This meets the objectives of LUD Semi-Remote Recreation and setting indicators for ROS Semi-Primitive (Appendix B).

Helicopter landing tour sites in LUD Semi-Remote Recreation at an identified enclave site may cause the ROS to become Rural. The standards and guidelines for ROS Class Rural indicate that remoteness is of little importance, and moderate to high concentrations of people and sights and sounds of human activity are acceptable when not continuous. The setting is located within one-half mile of areas that receive heavy aircraft travel. This meets the objectives of LUD Semi-Remote Recreation where occasional enclaves of concentrated recreation and tourism developments may cause the ROS to become Rural. The more restrictive limitations set in this FEIS cause the ROS setting to be closer to Roaded Natural by allowing fewer landings and people at one time at the enclave sites (Appendix B).

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Minor Developments

- Minor developments can occur in any of the proposed landing sites in both LUD Remote Recreation and LUD Semi-Remote Recreation, as long as they meet the prescribed ROS setting indicators for each LUD.
- Minor developments are likely to be limited to the placement of temporary, primitive, rustic facilities on site for the summer or a portion thereof, with virtually no or minor site modification. Site modification may involve a dug snow-pit for food storage/refrigeration.
- Site reclamation involves simple removal of facilities, after which the natural appearance of the site can be attained in less than a year.
- Immediately following site reclamation, some evidence of activity may remain. Evidence of dogsled mushing activities, for example, would include dogsled mushing trail patterns and patterns in the melted snow/ice surface below the removed temporary facilities.
- Minor developments may involve small rustic facilities with a single purpose or service, and may involve several sites or an extensive area. Basic essentials are typically provided. Examples of minor developments include, but are not limited to, temporary, portable shelters for the purposes of safety in poor weather conditions; housing for on-site outfitter guides; sanitary facilities (contained outhouses); outfitting clients for the activity on site; gear storage; and conducting activities such as dogsled mushing or glacier hiking and trekking. These facilities will be designed to blend in with the white, natural environment (Appendix B, pages B-10, B-11, B-12).
- The placement of any temporary facilities or structures in any LUD causes the site to become a “reserved site,” which requires the permittee to pay an additional site use fee (the reserved site fee was \$155.00 in 2001). This prohibits any other permittee from using the site for the season, as long as the facility is there. All commercial outfitter guide facilities on the Juneau Icefield must be removed at the end of the season.

Minor Developments in LUD Remote Recreation

The following conditions apply to minor developments in LUD Remote Recreation:

- Limited to a maximum of 3 helicopter landings and 18 people at one time.
- Must be a minimum of 3 miles from any other helicopter landing tour site.
- Limited to a maximum of 10 helicopter landings per site, per day.
- Would most likely involve the temporary placement of a portable weather port for client comfort and convenience.

Minor Developments in LUD Semi-Remote Recreation

- Can be at any landing site located in LUD Semi-Remote Recreation.
- All minor development helicopter landing sites in LUD Semi-Remote Recreation are limited to a maximum of 20 helicopter landings and 120 people at any one time, and up to 100 helicopter landings and 600 people per day.
- Sites must be a minimum of one-half mile from any other helicopter landing tour activity site.

- Sites would most likely involve one or several weather ports, temporary housing facilities for 2 to 12 outfitter guide employees stationed onsite daily or for multiple days, dogsled mushing camp facilities and trails, hiking and trekking routes, and gear storage tents.

Enclaves

- Enclaves can only occur in LUD Semi-Remote Recreation (not in LUD Remote Recreation).
- Enclaves are temporary in nature and are all considered minor developments because of their temporary nature. The only characteristic of an enclave development that brings it closer to the category of a major development is the higher number of users at enclave sites in LUD Semi-Remote Recreation; however, because of the more restrictive limitations set in this FEIS (more restrictive than Forest Plan standards and guidelines), enclaves are being considered as minor developments. Because they are allowed only in LUD Semi-Remote Recreation, they are consistent with the Forest Plan standards and guidelines.
- Enclave sites could have up to 20 helicopter landings and 120 people at one time, and up to 100 landings and 600 people per day; however, the actual numbers expected are more likely to be in the range of 3 to 6 helicopter landings and 18 to 36 people at one time, and 60 helicopter landings and 200 people per day.
- Enclaves can cause the ROS to become Roaded Natural, where the user should expect to have a maximum of 19 group encounters in the area. The Forest Plan allows ROS Rural, where the user could expect to meet much more than 20 group encounters in the area. The requirements applied in this FEIS are more restrictive than the standards and guidelines in the Forest Plan.

High Use Areas

The high use areas where a significant portion of helicopter landing tours could take place are on the lower portions of Mendenhall Glacier, Herbert Glacier, Norris Glacier, and Taku Glacier. These areas are the first areas to become suitable for helicopter landing tours in the early summer when the recent snow begins to melt, exposing the packed snow and ice that allow for safe, stable landing surfaces. These landing tours could involve groups of one to six helicopters each in the early part of the season. It is conceivable and within the FEIS limitations that there could be up to 20 helicopters at one time on the lower portion of these glaciers, in groups of 1 to 6, one-half mile or more apart. There have been approximately 35 helicopters historically available in Juneau for the Juneau Icefield landing tours; however, it is unlikely that more than half of them would be on one glacier at one time, and there have been no observations or reports indicating otherwise. It is expected that there could be from one to four groups of one to six helicopters on the lower Herbert, Mendenhall, Norris, or Taku glaciers at one time, and this would be well within the limitations of the Forest Plan and this FEIS.

When considering any of the landing sites under any of the alternatives addressed in this FEIS, it is unrealistic that all could be used at one time. All helicopter landing sites identified on the maps of alternatives are a compilation of historically used and newly requested landing sites. In addition to the limitations for numbers of helicopters and people at one landing site at one time, and the daily limitations, the actual use of any landing site depends on snow/ice surface conditions, daily and seasonal weather

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conditions, and the number of clients available and willing to pay for a helicopter landing tour on the Juneau Icefield.

The majority of overflights associated with the authorized landings occur over LUD Semi-Remote Recreation, where the Forest Plan allows the ROS to become Rural. Specific ROS for this LUD has setting indicators where the "Setting is located within ½ mile of heavily traveled roads and state highways or areas that receive heavy aircraft travel." This EIS establishes a more primitive ROS environment than the Rural ROS indicates, that being "Roaded Natural," where the "setting is located within ½ mile (greater or less depending on terrain and vegetation but no less than ¼ mile) of moderate to heavily traveled waterways and/or roads ... and open for use by the public or those areas that receive heavy small-aircraft travel." Refer to Appendix B, ROS Class Roaded Natural and ROS Class Rural, pages B-22 and B-24, respectively.

Manuals and Handbooks

The following Forest Service manuals and handbooks provide additional direction that applies to this project.

Forest Service Manual 2700 (FSM 2700)

FSM 2700 addresses statutory authority, regulations, policy, responsibility, and definitions related to special uses of the National Forest. The special uses objective for recreation as stated in Chapter 2720 is: "To issue and administer special use permits for recreation uses that serve the public, promote public health and safety, and protect the environment." Chapter 2720 recognizes outfitter and guide services as appropriate uses of NFS land and provides guidance on how to authorize the uses.

Forest Service Handbook 2709 (FSH 2709)

FSH 2709 provides guidance for implementing the direction in FSM 2700 related to the special use permit authorization process, administration of authorizations, fee determination, special uses administration, terms and conditions, and federal land use reports. Chapter 40 of this handbook directs the Forest Service to: "As identified in the forest land and resource management plans, provide for commercial outfitting and guiding services that address concerns of public health and safety and that foster small business; encourage skilled and experienced individuals and entities to conduct outfitting and guiding activities in a manner that protects environmental resources and ensures that National Forest visitors receive high quality services."

Forest Service Manual 2300 (FSM 2300)

FSM 2300 identifies objectives for public recreation management, including the following:

- To provide non-urbanized outdoor recreation opportunities in natural-appearing forest and rangeland settings
- To protect the long-term public interest by maintaining and enhancing open space options; public accessibility; and cultural, wilderness, visual, and natural resource values
- To promote public transportation and/or access to National Forest recreation opportunities

Forest Service Manual 2600 (FSM 2600)

FSM 2600 identifies objectives to maintain ecosystem diversity and productivity, including maintaining at least viable populations of wildlife and plants in habitats

distributed throughout their geographic range on NFS lands, and producing habitat capability levels to meet sustained yield objectives relative to demand for featured and management indicator species.

Forest Service Manual 2630 (FSM 2630)

FSM 2630 identifies objectives to maintain and improve wildlife and fish habitat. The negative effects of other projects upon wildlife and fish habitat are to be mitigated.

Laws, Statutes, and Ordinances

Land and Water Conservation Fund Act of 1965

The special use permits for commercially outfitted helicopter icefield landings are administered under the direction of the Land and Water Conservation Fund Act of 1965. This Act gives federal agencies, in this case the Forest Service, the authority to administer special use permits and collect special use permit fees for recreation outfitter/guided services.

Endangered Species Act of 1973 (as reauthorized in 1988)

The USFWS and NMFS administer the Endangered Species Act (ESA), as reauthorized in 1988. The Forest Service must consult with USFWS regarding terrestrial threatened or endangered species and with NMFS regarding marine threatened or endangered species that might be affected by proposed activities associated with the helicopter landing tours on the Juneau Icefield. If any impacts are projected, specific design measures must be developed to protect the affected species.

Marine Mammal Protection Act of 1972

NMFS also administers the Marine Mammal Protection Act (MMPA), which prohibits the "take" of all marine mammal species in U.S. waters. "Take" is defined as: "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Harassment is defined in the MMPA as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering."

The Bald and Golden Eagle Protection Act of 1940 (as amended)

Administered by USFWS, the Bald Eagle Protection Act of 1940, as amended, makes it unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, their parts, products, nests, or eggs. "Take" includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles.

Fish and Wildlife Coordination Act of 1934 (16 USDF 66, et seq.)

The Fish and Wildlife Coordination Act requires federal agencies to solicit comments from USFWS and ADF&G regarding the impacts on fish and wildlife resources and measures to mitigate these impacts. It requires that fish and wildlife resources receive equal consideration to other project features.

Airborne Hunting Act (Public Law 92-159, 1971, as amended)

This Act, commonly referred to as the Airborne Hunting Act or Shooting from Aircraft Act, prohibits shooting or attempting to shoot or harass any bird, fish, or other animal

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from aircraft except for certain specified reasons, including protection of wildlife, livestock, and human life as authorized by a federally or state-issued license or permit.

Alaska National Interest Lands Conservation Act (ANILCA) Section 810, Subsistence Evaluation and Finding

Under the requirements of ANILCA, the effects of this project must be evaluated to determine potential effects on subsistence opportunities and resources. That evaluation has been made, and no potential impacts were identified (Forest Service, 2001a).

Coastal Zone Management Act of 1972 (as amended)

The Coastal Zone Management Act requires the Forest Service, when conducting or authorizing activities or undertaking development directly affecting the coastal zone, to ensure that the activities or development be consistent with the approved Alaska Coastal Management Program to the maximum extent practicable. In accordance with Section 302 of the "Memorandum of Understanding between the State of Alaska and the USDA Forest Service, Alaska Region, on Coastal Zone Management Act/Alaska Coastal Management Program Consistency Reviews" (FS Agreement No. 00MOU-111001-026, effective March 2, 2000), this project falls into a category of permitting actions that does not normally require a consistency determination.

National Historic Preservation Act of 1966

The Forest Service program for compliance with the National Historic Preservation Act includes locating, inventorying, and nominating all cultural sites that may be directly or indirectly affected by the scheduled activities. No cultural site survey is required on snow fields and icefields per the programmatic agreement between the Forest Service, the State Historic Preservation Officer, and the Advisory Committee. If any historic, prehistoric, or paleontological objects or sites are discovered during the helicopter landing tours and associated activities, the outfitter/guide must notify the Forest Service. Items of historic, prehistoric, or paleontological value are protected under various federal laws, including the Antiquities Act of 1906 (16 USC 433), the Archeological Resources Protection Act of 1979 (16 USC 470ee), and federal regulations.

Flood Plain Management (Executive Order [EO] 11988), Protection of Wetlands (EO 11990), and Environmental Justice (EO 12898)

These EOs include specific factors that all federal agencies must consider before implementing activities on federal lands.

Federal Aviation Administration

FAA is the agency responsible for all flight operations and has regulatory authority for all aircraft travel within the Airport Influence Zone of the Juneau Airport (see Figure 1-6). The Juneau Air Traffic Control Tower (ATCT), operated by the FAA, Air Traffic Control Division, has authority over aircraft movements in the airspace encompassing a 3-nautical-mile radius of the airport, up to 2,500 feet above ground level (AGL). As noted earlier, the FAA, in cooperation with CBJ, has direct control over aircraft flight paths within the Airport Influence Zone. They do not have authority over aircraft noise within this influence zone. If CBJ were to approve a noise ordinance, however, FAA concurrence would be required.

**Federal Aviation
Regulation (FAR)
91.119**

The Flight Standards Division (FSD) of the FAA is responsible for regulatory control of flight operations, whether in controlled or uncontrolled air space. Issues such as flight safety in uncontrolled areas of the Juneau Icefield come under the jurisdiction of the FSD.

The Code of Federal Regulations (CFR) for the FAA and the Department of Transportation (DOT), Volume 14, Chapter 1, Part 135.203, states:

Except when necessary for takeoff and landing, no person may operate under visual flight rules (VFR) a helicopter over a congested area at an altitude less than 300 feet above the surface.

Only commercial helicopters have this 300-foot AGL restriction (for most of the commercial operations), and it applies to helicopter landing tours to the Juneau Icefield.

If a helicopter is not carrying passengers for compensation or hire, then it falls under the rules of FAR 91.119, which states that helicopters may be operated at less than 300 feet if the operation is conducted without hazard to persons or property on the surface. Many helicopter flights in the Juneau area, not involving passenger flights to the icefield, fall under this less restrictive regulation.

**FAA Advisory
Circular AC91.36C,
March 19, 1984**

In addition to the 300-foot rule cited above, the FAA has also issued AC91.36C, dated March 19, 1982, that recommends a 2,000-foot, ground-level restriction over noise-sensitive areas. These guidelines, in addition to the following letters of agreement (LOAs), cover air tour flight operations.

**Letter of
Agreement**

Helicopter operators (U.S. Army National Guard, Coastal, Era, NorthStar, TEMSCO, and Silver Bay Logging) have developed an LOA with the Juneau ATCT to identify arrival and departure routes and elevations for the immediate airport influence zone. This LOA was last revised and became effective in April 2001. The FAA has regulatory authority for compliance with this LOA (FAA, 2001a).

**Voluntary Letter
of Agreement**

This voluntary LOA (VLOA) is between airspace users in the Juneau area. Signature to and compliance with this VLOA is voluntary. It is updated annually or when necessary.

This VLOA is entered into to establish safe operating practices in uncontrolled airspace in the geographic areas surrounding Juneau, Alaska. The intent is to ensure horizontal and vertical separation of aircraft and to ensure that aircraft on common routes are on the same radio frequencies. Signature of an aircraft operator to this agreement indicates that these procedures should be adhered to when operating on the described routes. This does not restrict an aircraft operator from using non-depicted routes in uncontrolled airspace. Variations from this VLOA may be made after verbal coordination with other affected parties. The agreement does not relieve aircraft operators and pilots from adhering to FARs or operating specifications issued to that company by the FAA. It remains a right and responsibility for pilots to deviate from any procedure if required to ensure the safety of their aircraft, or when weather or traffic conflicts require.

The methods employed to implement this agreement include preferred routes, primary and secondary reporting points, specific radio frequencies, frequency changeover points, and specific altitudes for specified directions of flight in areas of traffic conflict.

The routes and procedures are designed to include commercial aircraft operations (air carriers and tour operators), both fixed- and rotary-wing aircraft, and special use operations such as paragliders and powered and nonpowered parachutes.

The procedures in this agreement are based on effective procedures developed over years of use by local commercial operators. The topography and prevailing weather surrounding Juneau, Alaska, channels aircraft into common routes, creating potential conflicts between aircraft regardless of the type of operation being conducted. The

1 Purpose and Need

largest concentration of aircraft comprises VFR commuter traffic and air tours; however, all aircraft are geographically constrained to use the same routes (FAA, 2002).

Alaska Administrative Code (AAC)

Section 5 AAC 92.080, in pertinent part, states:

Unlawful Methods of Taking Game; Exceptions. The following methods of taking game are prohibited: ... (5) except as otherwise specified, with the use of an aircraft, snow machine, motor-driven boat, or other motorized vehicle to harass game or for the purpose of driving, herding, or molesting game ...

Harass means to repeatedly approach an animal in a manner which results in the animal altering its behavior.

This code section is applicable to helicopter tours, and prohibits low passes for passengers to view wildlife if the pass results in the animal changing its behavior.

City and Borough of Juneau

CBJ is the proprietor of the Juneau International Airport and the agency responsible for regulating noise in residential areas. Airports are responsible for controlling aircraft noise and mitigating its effects close to airports.

CBJ controls the Juneau Airport airfield, facilities, infrastructure, leases, and hours of operation for the airport; however, the CBJ has no jurisdiction over aircraft in flight.

Mitigation Recommendations and Mediation Efforts

Controversy over this tourist activity has been building in the region, fueled by what residents and hikers in the flight paths report as continuous and cumulative noise. The following paragraphs summarize key initiatives, studies, mitigation plans and recommendations, and mediation efforts to date.

Flightseeing Operators' Action Plan and Other Joint Activities

In late 1999, the flightseeing operators developed an action plan to help mitigate the noise associated with flightseeing operations (Flightseeing Operators, 1999). The following elements were included in their action plan:

- Short-Term Actions
 - Review routes and altitudes to determine what additional actions could be taken, such as alternating or rotating routes, timing the use of different routes depending on what people would be doing at various times of the day, looking for new routes, and establishing voluntary “low use” zones near recreation trails and cabins
 - Demonstrate noise levels associated with different aircraft, routes, numbers of aircraft, and spacing of aircraft
- Short- to Mid-Term Actions
 - Develop new heliport sites
 - Work with cruise lines to distribute visitors more evenly throughout the day and the week
- Mid- to Long-Term Actions
 - Adopt quiet technology

- Continuing Actions
 - Develop educational materials to help public understand flightseeing activities
 - Maintain safety
 - Use aircraft with friendlier noise footprint

Several of the operators subsequently formed the non-profit organization Friends of Aviation that, among other activities, publishes newsletters and fact sheets that describe their icefield activities and their ongoing noise mitigation efforts (Friends of Aviation, 2001).

Citizen's Initiative

In 2000, a citizen initiative was filed with the CBJ Clerk that proposed an ordinance to regulate noise from tourist flights in Juneau. The provisions of the initiative included a request to the Forest Service to reduce the number of helicopter landing permits for the Juneau Icefield; a ban on tourist and associated logistical flights on Saturday and between 5 p.m. and 9 p.m. Sunday through Friday from May 1 to September 30; a restriction on new heliport construction; and a prohibition on the spending of public monies for research related to new heliports (CBJ, 2000a). Although opposed by the Juneau Chamber of Commerce (2000) and defeated in the municipal elections on October 3, 2000, by a vote of 8,030 to 3,562 (CBJ, 2000b), the initiative does represent community concern over the issue of noise.

McDowell Group Survey

The 1998 Juneau Tourism Community Opinion Survey, conducted to measure household attitude and perception changes toward community issues related to tourism, revealed that 81 percent of residents felt helicopter flightseeing should either be maintained at current levels (49 percent) or reduced (32 percent), while 13 percent felt the industry could expand (McDowell Group, Inc., 1998). In contrast, 19 percent of respondents in 1995 thought helicopter flightseeing should be reduced and 21 percent felt it could expand. When asked if helicopter noise was reduced, the same, or increased in relation to the previous summer's level (1997), 41 percent of the respondents said helicopter noise had increased and 39 percent said there was no change. The areas most affected by helicopter noise were Douglas and West Juneau (52 percent) and West Mendenhall and Out the Road residents (50 percent).

As part of its effort to develop a tourism management plan for Juneau, the CBJ has conducted polls to determine public attitudes toward various aspects of the tourism industry (CBJ, 2001). The results of these polls help to characterize both the magnitude of the problem and the differences of opinion that exist in the community. Among other results, the polls indicate that the community has a wide range of opinions relating to noise.

The following results indicate that noise is a serious problem for many residents:

- 45 percent of adult respondents have a friend or family member who is bothered substantially by helicopter flightseeing noise
- 43 percent of adult respondents indicated that the helicopter flightseeing noise issue is very important to them
- 60 percent of adult respondents said that the tourism plan's management objective regarding helicopter flightseeing noise should be to eliminate it (8 percent), reduce it substantially (30 percent), or reduce it somewhat (22 percent)
- 30 percent of adult respondents listed reducing flightseeing noise as one of their three most important goals related to tourism management

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Other results indicate that noise is not a serious problem for many residents:

- 43 percent of adult respondents do not have a friend or family member who is bothered substantially by helicopter flightseeing noise
- 40 percent of adult respondents listed reducing flightseeing noise as one of their three least important goals related to tourism management

These statistics portray a community that has very diverse opinions on the issue of noise and the significance of its effects.

Tourism Advisory Committee and CBJ Recommendations

Until July 10, 2000, the CBJ had a Tourism Advisory Committee (TAC) addressing flightseeing noise, as well as other tourism-related issues. Table 1-3 summarizes the numerous general and specific recommendations made by citizens who participated in the TAC's outreach program and public meetings. Many of these recommendations are outside the jurisdiction of the Forest Service, but all were reviewed and considered for their relevance to this EIS.

The functions of the former TAC are now under the direction of the CBJ's Assembly Planning and Policy Committee. Based on this background, the CBJ suggested that the Forest Service implement the following recommendations in issuing special use permits to the tour operators (CBJ, 2000):

1. Provide for modest growth (3 to 5 percent annually) in the first 2 years covered by new special use permits, then base growth in years 3 through 5 on the permittee's acquisition and implementation of quiet technology.
2. Issue permits allowing modest growth (3 to 5 percent annually) on the condition that the permittee implement more "resident friendly" flight paths and altitudes.
3. Reserve the right to change icefield landing sites in future years that permits are in force to take advantage of any future change in heliport sites.
4. Carefully consider any action that would make it economically more difficult for the tour operators to recoup their investment if they were to invest in quieter technology (such as reducing the number of landings).

Additionally, outside the special use permitting process, the CBJ recommended that the Forest Service participate in the process of considering establishment of one or more remote heliport sites in Juneau. If properly selected, these new heliports could reduce flying time to the icefield, cutting down on the duration of each noise-producing event and removing the primary noise-generating site (the point of take-off and departure) from the most populous areas (CBJ, 2000).

Mediation Results

To assist in moving toward resolution of noise-related issues, the Forest Service hired Triangle Associates, Inc. of Seattle, a facilitation/mediation firm, as a neutral third party to help identify problems and potential solutions. While mediation is not always possible or appropriate, it has met with some success in dispute resolution over noise issues in several cities, including Seattle, Dallas/Ft. Worth, Phoenix, Cleveland, and Narita, Japan (Brown, 1999). In the Seattle case, a citizen representative in the mediation process noted that airport neighborhood residents received "considerable" noise relief at night and phased in quieter planes on a faster schedule than national regulations required (Brown, 1999).

In the current Juneau case, beginning in February 2000, Triangle Associates interviewed several parties and individuals regarding the flightseeing noise issue, and held several meetings. The mediation group worked with all interested parties to develop short- and long-term solutions. Although the formal mediation process is no longer active, the

Forest Service continues to work cooperatively with all parties to develop feasible solutions and define mitigating measures within the Forest Service's jurisdictional authority.

Before suspending their activity, the mediation group was discussing the following concepts (Triangle Associates, 2001):

- Using noise modeling to evaluate new flight routes and changes to existing routes and to evaluate and recommend changes to flight densities (that is, the number of aircraft flying together)
- Encouraging helicopter companies to continue to seek out and use alternative flight routes on good weather days when safety would not be compromised. Specific elements under discussion in January 2001 included the following:
 - Working with residents to determine best Lemon Creek arrival route
 - Increasing the Douglas Island overflight altitude to decrease noise exposure on the ground
 - Increasing the West and Mendenhall route overflight altitude to decrease noise exposure on the ground
 - Developing a Salmon Creek route
 - Developing a Sheep Creek route
 - Avoiding Gold Creek/Perseverance Trail area to benefit recreationists
 - Alternating use of Gold Creek/Perseverance Trail and Salmon Creek routes to allow each neighborhood to have additional quiet periods during the day
 - Alternating use of West and Mendenhall routes to allow each neighborhood to have additional quiet periods during the day
 - Using only the West route to reduce noise impact in the Mendenhall Valley
 - Avoiding Sockeye Flats area to benefit recreationists and hunters
 - Avoiding higher elevations of Spaulding Meadows area to benefit recreationists, in exchange for landings above 1,500 feet on Eagle Glacier
 - Using McGinnis Creek Valley and Hidden Valley in lieu of Montana Creek
 - Initiating immediate climb from the helipad on West departure to reduce noise around Peterson Hill area
 - Remaining as high as possible as long as possible on West arrivals to reduce noise around Peterson Hill area
 - Remaining as high as possible as long as possible on Mendenhall arrivals
- Creating new heliport sites

Most of these concepts are outside the jurisdiction of the Forest Service, but all were reviewed and considered for their relevance to this EIS.

Noise Study Recommendations

The CBJ commissioned a noise study in 2000, herein referred to as the 2000 Noise Assessment, to characterize the existing noise environment and make recommendations for change. The final report (Michael Baker Jr., Inc. [Michael Baker] et al., 2001) recommended that the following mitigation options be pursued, either through a regulatory approach or through a voluntary approach such as mediation:

- New, quieter aircraft technology could potentially reduce the noise level by 3 to 5 decibels (dB) (see the Glossary and Chapter 3 for an explanation of noise measurement terms).

1 Purpose and Need

- Alternative flight paths can reduce the overall noise level. The path over Douglas Island results in a lower noise level overall than the path down the center of Gastineau Channel, and the path up the ridgeline, south of Mendenhall Valley, reduces the overall noise level. Although the preferred flight paths are only available during good weather, their use could be increased if improved weather information were available and if compliance monitoring were improved.
- Satellite heliports located north and south of town away from core residential areas would make it possible for helicopters to reach the icefield without passing over as many homes. To achieve the desired reduction in noise, the sites would have to be carefully located and should not be used to increase the number of flights.
- A noise budget can be used to create a level or declining cap on the total noise generated by the helicopter flightseeing tour operators. The concept is to allow the operators to maintain or increase their level of operations only if they adopt technologies or procedures that allow them to operate within the noise budget. This concept has been applied elsewhere (e.g., Seattle, WA, and Jackson Hole, WY), and works best when implemented through voluntary programs. The report notes that the Forest Service could use the special use permitting process to shift landing permits to those operations that invest in quiet technology or otherwise reduce the noise generated by their flights.
- Enhancement of the existing Fly Quiet/Fly Neighborly program could be accomplished with better monitoring, grading, and publication of the results. The intent of such an effort would be to allow the companies to do informed self-evaluations of their performance and identify areas where they could improve. The CBJ could use the results to reward compliance (e.g., by giving an annual award to the environmentally best operator), and the Forest Service could use the results to complement its landing permit evaluation process.
- A limited program of seasonal noise monitoring is recommended to determine whether continued monitoring would provide useful, cost-effective information.

Durden Report Recommendations

The CBJ recently requested a legal opinion concerning the many mitigation options that had been presented to the CBJ. The resulting report (Durden, 2001) indicates that many recommended mitigation options are beyond the legal authority of the CBJ. Among these were a ban on flightseeing flights, an ordinance to reduce the number of flights, and a curfew limiting the hours during which flights could take place. Comments in the report that relate specifically to helicopter noise include the following:

- Fly Quiet/Fly Neighborly programs currently in use help with the noise problem, but cannot by themselves solve the problem. These programs have an educational value, in that they keep pilots aware of the need to operate their aircrafts in a way that respects the people affected by the noise.
- The CBJ has virtually no power to require the helicopter companies to use newer, quieter technology, but can encourage its adoption by offering financial incentives.
- The solution to the noise problem must involve getting the aircraft away from low altitude flight over Gastineau Channel.
- It would be virtually impossible for the CBJ to get federal legislation passed within the next 10 years, if ever, that would control flight paths around Juneau.

- Enacting a noise ordinance that would be “effective and comply with FARs, statutes, and case law would be extremely difficult, expensive and time consuming.”

The report’s recommendation is that the CBJ enter into negotiations with the helicopter operators to reach a noise reduction operating agreement in the form of a contract enforceable by each party. The agreement would establish one or two heliports outside the city that would accommodate all helicopter operations, and would set out flightseeing departure and arrival routes and altitudes to get flightseeing helicopters to and from the icefield with minimal impacts to areas of human habitation. The agreement should also eliminate flightseeing routes that pass up Gastineau Channel. The CBJ would use its zoning process to support the effective implementation of the agreement, and could also offer financial incentives, such as tax relief, to the helicopter companies.

Noise Budget

The Forest Service has been considering the establishment of a noise budget for the icefield landing tours. The intent of a noise budget concept is to encourage commercial operators to incorporate new, quiet technology into their helicopter fleet. For any given number of landings, an equivalent measured amount of noise would be established based on the noise generated by an A-Star helicopter, the preferred aircraft currently used for the tours. This would be the equivalent noise budget. If icefield landing tour operators wanted to increase their number of landings from the identified maximum number of landings, they would be allowed the increase as long as the established noise budget is not exceeded.

Noise budgets have been considered and/or tried in some areas, but not in others. The following examples are indicative of the range of experience:

- The United States Department of the Interior (USDI) National Park Service (NPS) has recommended establishing aircraft noise budgets for commercial air tours in the Grand Canyon National Park, which the FAA is considering (Federal Register, 2000). Here, the market place would allow the aircraft owners to determine which airplanes to fly by rationing the amount of noise an operator could emit.
- In a cooperative effort with mediators, a noise budget was created for the Seattle airport that requires airlines to reduce their share of noise every year (Brown, 1999).
- Helicopter operators in Hawaii and Whistler, B.C., comply with the voluntary programs; there are no noise budgets (Dorn, 2001; Riemer, 2001; Pedersen, 2001). Although quiet technology is available in both locations, tour operators report that there are no real incentives to implement this technology because of the expense and the general opposition of some members of the public to flightseeing tours (Dorn, 2001; Riemer, 2001).

Because this concept has yet to be adopted, this FEIS has not identified a maximum number of landings to be used to establish a noise budget.

Current and Ongoing Activities

Currently, the CBJ is taking a number of steps to address issues in their jurisdiction. Among their initiatives are the following:

- Initiating further noise studies to project noise reductions based on changes to flight routes and altitude changes resulting from the voluntary compliance programs
- Evaluating potential heliport locations away from core residential areas
- Drafting an ordinance providing business property tax relief for companies that invest in quiet technology helicopters

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Additionally, the helicopter operators have undergone a facilitated process to further refine routes, altitudes, and landing areas. This facilitated process includes community representatives. Figure 1-7 shows the planned normal weather and poor weather routes, as well as avoidance areas, developed by the operators over the years as part of this ongoing activity. Figure 1-7 represents the most recently revised plans, developed with the FAA as part of the operators' involvement in the Juneau Tour Operators' Best Management Program.

In 2000, the CBJ hired Michael Baker Jr., Inc. to evaluate and recommend alternative heliport sites. Because the Forest Service authorizes the number of helicopter landings and landing sites, they worked with Michael Baker throughout the analysis of potential heliport sites. The goal of the assessment was to determine if heliports could be located in areas that would reduce flightseeing noise impacts to the maximum number of residents in Juneau. Because the flight routes and sites generally occur in groups to the north and the south, it became clear that noise impacts would be reduced if one site were located in the north and one site were located in the south.

The evaluation of potential sites consisted of establishing and applying screening criteria (e.g., access, safety, noise, economics, traffic, environmental considerations, and impacts on residences) through a series of screening levels, including a comparison between the number of residences currently affected by flightseeing noise and the number of residences that would be affected by helicopter flightseeing noise originating from the potential heliports. In the *Alternative Heliport Site Analysis* (Michael Baker and BridgeNet International, 2001), the recommended sites are Montana Creek (north) and Dupont (south). If flightseeing tours moved from the Juneau Airport and the Era base to these two alternative sites, the number of homes in the 6,000-foot (1.1-mile) noise corridor would be reduced from 6,037 to zero (Michael Baker and BridgeNet International, 2001).

The information generated by all of these previous efforts has been considered in this analysis. Recommendations in the jurisdiction of the Forest Service have been considered and included in the range of alternatives presented in Chapter 2. Any municipal ordinances promulgated as a result of the CBJ's ongoing evaluation of this issue will apply as part of the special use permit terms and conditions.



- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin

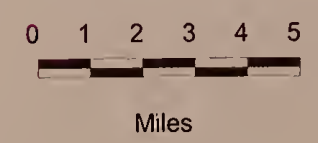
Figure 1-7
Typical Flight Routes
and
Avoidance Areas

Juneau, Alaska

- Normal Weather Helicopter Routes
- - - Poor Weather Helicopter Routes
- Noise Sensitive/Avoidance Areas
- - - Borough Boundary
- ▲ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- ... Trails
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary

Contour Interval 200 feet

Scale 1:300,000



CHAPTER 2

ALTERNATIVES

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CHAPTER 2

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Chapter 2

Alternatives

Introduction

NEPA requires consideration of alternatives to the Proposed Action that address important issues identified in the scoping process. This chapter describes and compares the Proposed Action and seven other project alternatives, including the No-Action Alternative. The discussion of alternatives is the foundation of the EIS process (40 CFR 1502.14). There must be a reasonable array of alternatives that address significant issues to achieve the purpose for which an EIS is prepared. Table 2-1 summarizes the key elements of all alternatives.

Alternatives

Alternative A—No Action

This alternative represents the viewpoint of people who do not want any helicopter flightseeing or commercial helicopter landings on the Juneau Icefield. It does not meet the purpose and need of the Proposed Action. Under the No-Action Alternative, the current permit extensions would be allowed to expire December 31, 2002. No new special use permits to land helicopters on the Juneau Icefield would be issued to the helicopter companies. There could be some increase in requests for point-to-point landing permits, although the cruise ship passengers who make up the majority of helicopter landing tour customers are not generally in the market for point-to-point trips. Flightseeing-only tours (helicopter tours that do not land on NFS lands) are outside the jurisdiction of the Forest Service and would most likely still occur, even if no landings are authorized.

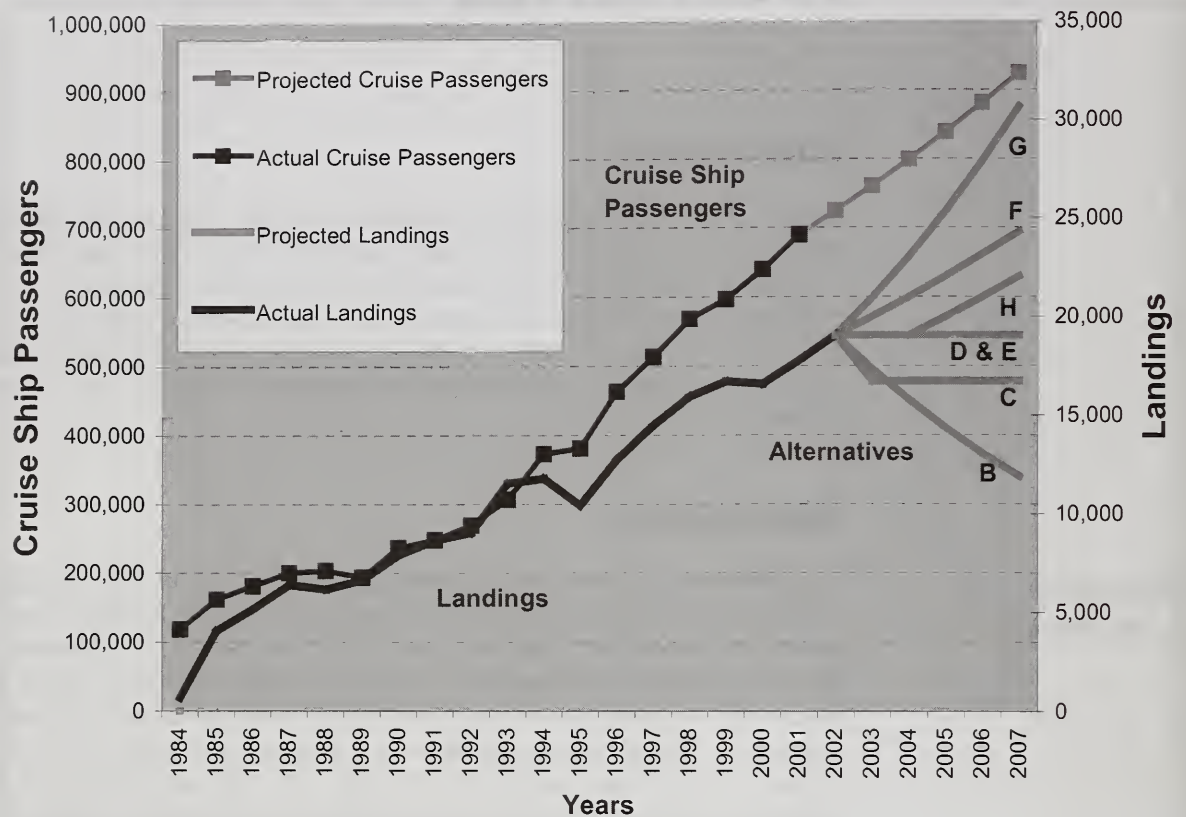
There are many places where flightseeing-only tours occur, both in Alaska and elsewhere. Cruise ship passengers, for example, already have the opportunity to select flightseeing-only tours in Juneau, Skagway, and other ports of call. Although these flights are generally less expensive than tours that land, they are selected by only several hundred cruise ship passengers who take flightseeing tours in Juneau (Thomas, 2001). In other areas where flightseeing is a popular tourist activity, some areas do not allow any tours that land. In Hawaii, for example, competition for landing permits on the Ne Pali Coast on the island of Kauai eventually led land managers to no longer permit helicopter landings on public (state) lands.

Alternatives B through H—Action Alternatives

Alternatives B through H would allow various levels of commercial landing tours on the Juneau Icefield. The associated flight paths and altitudes, for the most part, are outside the jurisdiction of the Forest Service. The FAA and airspace users manage the routes and altitudes used. The guiding documents and agreements between the affected parties are based on the May 10, 1999, LOA between helicopter operators and the Juneau ATCT (FAA, 1999). In addition, the VLOA between the Flight Standards Office and Juneau airspace users is assumed to apply through 2006 (refer to Chapter 1, under the heading *Federal Aviation Administration*).

Figure 2-1 displays the range of landings associated with Alternatives B through H. Also shown in Figure 2-1 is a projected 5 percent annual increase in the number of cruise ship passengers for 2002 through 2007 (JCVB, 2001a).

Figure 2-1. Comparison of Landings by Alternative to Cruise Ship Passenger Growth



Sources: Cruise ship data source: JCVB, 1999, 2001a. Subsequent growth is estimated at a 5 percent average annual increase. Number of actual landings are based on Forest Service Actual Use Reports.

Alternative B—Reduce Icefield Landings to 1994 Actual Use Level

Alternative B (Figure 2-2) best represents the citizens who want to reduce the number of helicopter landing tours on the Juneau Icefield. Under this alternative, special use permits could be approved through 2007. This alternative would incrementally reduce the current authorized use level of 19,039 landings to the 1994 actual use level of 11,881². The number of authorized landings would decrease an average of 9 percent each year, as shown in Table 2-2.

² Although the number of actual landings was reported as 11,647 in the 1995 EIS, actual use data showed the number of landings to be 11,881. Subsequent Forest Service reports recalculated the actual use level to be 11,793 landings; however, this FEIS uses the 1994 values reported in the Draft EIS (11,881). Reporting and tracking procedures for numbers of landings were not consistent during 1994.

Table 2-1. Alternatives

Component	Alternative A No Action	Alternative B (Figure 2-2)	Alternative C (Figure 2-2)	Alternative D (Figure 2-4)	Alternative E Proposed Action (Figure 2-5)	Alternative F (Figure 2-6)	Alternative G (Figure 2-7)	Alternative H Preferred Alternative (Figure 2-8)
Description	No authorized landings, with no flight restrictions	Reduce icefield landings 9% annually from 1999 authorized to 1994 actual use level, with time and day restrictions	Limit icefield landings to 1999 actual use level, with some day restrictions	Limit icefield landings to 1999 authorized use level, with limited new locations and some day restrictions	No increase from 1999 authorized use level, with limited new locations and some day restrictions	Increase authorized icefield landings 5% annually from 1999 authorized use level, with new locations	Increase authorized icefield landings 10% annually from 1999 authorized use level, with new locations	Limit icefield landings to 2002 authorized use level in 2003 and 2004, then increase authorized icefield landings 5% annually, with one new location
Number of landings (by 2007)	None	11,881	16,706	19,039	19,039	24,229	30,662	22,040
Hours landings can occur	None	8:30 a.m. to 6:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.
Days per week landings can occur	None	5	6	6 in existing areas, 5 in new areas	7 in existing areas, 5 in new areas	7 in existing areas, 7 in new areas	7 in existing areas, 7 in new areas	7 in existing areas, 7 in new areas
Days per season landings are allowed ¹	No limits	106	128	128	153	153	153	153
Average # of landings per day (by 2007)	None	112	131	149	124	158	200	144
Landing locations	None	Same as now; no new areas	Same as now; no new areas	Addition of new areas north of 1995 EIS area	Addition of new areas north of 1995 EIS area	Addition of Eagle Glacier, Death Valley, and new areas north of 1995 EIS area	Addition of Eagle Glacier, Death Valley, and new areas north of 1995 EIS area	Addition of Death Valley
Flight paths	No limits	Same as now	Same as now	Same as now with addition of new areas	Same as now with addition of new areas	Same as now with addition of new areas	Same as now with addition of new areas	Same as now with addition of new areas
Distance from wildlife	No limits	1,500 feet	1,500 feet	1,500 feet in existing areas; 1 mile in new areas	1,500 feet in existing areas, 0.5 mile in new areas, except for Antler Glacier Lake	1,500 feet in existing areas; 0.5 mile in new areas	1,500 feet in all areas	1,500 feet in all areas
Trail end buffers	None	Yes	Yes	Yes	Yes, with some exceptions for safety in the early season, at Herbert Glacier Trail and West Glacier Trail	Yes, with some exceptions for safety in the early season, at Herbert Glacier Trail, Eagle Glacier Trail, and West Glacier Trail	No	No
Motorized snow vehicle tours	None	None	None	In Semi-Remote Recreation LUD	In Semi-Remote Recreation LUD	In Semi-Remote Recreation LUD	In Semi-Remote and Remote Recreation LUDs	None
Expanded area north to the Haines/Juneau Borough line	No	No	No	Yes, new areas weekdays only	Yes, new areas weekdays only	Yes	Yes	No
Eagle Glacier and Death Valley landings	No	No	No	No	No	Yes	Yes	Death Valley only
Antler Glacier Lake landings	No	No	No	No	Yes	No	No	No
Consistent with Forest Plan	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

¹ Primary use season: May 1 – September 30, a total of 153 probable days of operation. Note that use may occur during the shoulder season, prior to May 1 and after September 30.



- 1 Berners Bay Cabin
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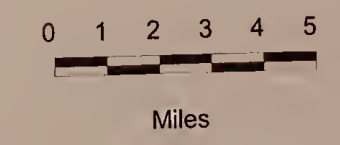
Figure 2-2
Alternatives B & C

Juneau, Alaska

- Borough Boundary
- Proposed Flight Routes
- Proposed Landing Sites
- Proposed Minor Developments
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- - - Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary
- Trail End Buffers
- JIRP Buffers

Contour Interval 200 feet

Scale 1:300,000



Landings would be authorized between 8:30 a.m. and 6:00 p.m., 5 days a week from early May through late September. Saturdays, Sundays, holidays (Memorial Day, Independence Day, and Labor Day), and evenings from 6:00 p.m. to 8:00 p.m. would be quieter than currently. Flight paths and landing sites would remain generally the same as those currently used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, and bears where feasible. The proposed combination helicopter and fixed-wing tour with landings at the base of Antler Glacier and on Antler Glacier Lake, as well as other areas north to the Haines/Juneau Borough line, would not be allowed. No motorized snow vehicle use would be authorized on the icefield in any of the LUDs.

Table 2-2. Authorized Maximum Number of Landings Each Year—Alternative B

	2003	2004	2005	2006	2007
Number of landings authorized	17,325	15,766	14,347	13,056	11,881
% change (from previous year)¹	-9	-9	-9	-9	-9
Average number of landings per day²	163	149	135	123	112

¹ 2003 shows % change from landings authorized in 1999, 2000, 2001, and 2002 (19,039 landings).

² Based on a 106-day season, May 1 to September 30; no operations on weekends or holidays.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Reducing the number of authorized landings from the 1999 authorized use level of 19,039
- Limiting landings to weekdays only in the existing area of operations and allowing no landings on the three major holidays
- Limiting the hours landings could occur to between 8:30 a.m. and 6:00 p.m., the shortest operating day of any of the alternatives
- Not authorizing motorized snow vehicle tours at any location on the icefield
- Not authorizing landings within the trail buffers (0.5 mile at West Glacier Trail; 1 mile at Herbert Glacier Trail)

Alternative C—Limit Icefield Landings to 1999 Actual Use Level

Under this alternative (Figure 2-2), special use permits could be approved through 2007. This alternative would hold the authorized landings at the 1999 actual use level of 16,706, with added day restrictions, as shown in Table 2-3.

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 6 days a week from early May through late September. Landings would not occur on Sunday and major holidays (i.e., Memorial Day, Independence Day, and Labor Day). Flight paths and landing sites would remain generally the same as currently used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, and bears where feasible. The proposed helicopter and fixed-wing tour with landings at Antler Glacier Lake, as well as other new areas north to the Haines/Juneau Borough line, would not be allowed. No motorized snow vehicle use would be authorized on the icefield.

Table 2-3. Authorized Maximum Number of Landings Each Year—Alternative C

	2003	2004	2005	2006	2007
Number of landings authorized	16,706	16,706	16,706	16,706	16,706
% change (from previous year)¹	0	0	0	0	0
Average number of landings per day²	128	128	128	128	128

¹ 2003 shows % change from actual landings in 1999 (16,706 landings).

² Based on a 128-day season, May 1 to September 30; no operations on one day a week and holidays.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Reducing by approximately 12 percent the number of authorized landings from the 1999 authorized use level of 19,039 landings
- Limiting landings to 6 days a week in the existing area of operations and allowing no landings on the three major holidays
- Not authorizing motorized snow vehicle tours at any location on the icefield
- Not authorizing landings within the trail buffers (0.5 mile at West Glacier Trail; 1 mile at Herbert Glacier Trail)

Alternative D—Limit Icefield Landings to 1999 Authorized Level

Special use permits could be approved through 2007 under this alternative (Figure 2-4). It would limit helicopter tour landings to the existing authorized level of 19,039, with limited new locations and day restrictions, as shown in Table 2-4.

Table 2-4. Authorized Maximum Number of Landings Each Year—Alternative D

	2003	2004	2005	2006	2007
Number of landings authorized	19,039	19,039	19,039	19,039	19,039
% change (from previous year)¹	0	0	0	0	0
Average number of landings per day²	149	149	149	149	149

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized landings (19,039 landings).

² Based on a 128-day season, May 1 to September 30; no operations on one day a week and holidays.

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 6 days a week from early May through late September in the existing areas of operation, and 5 days a week in the new areas. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. Landings would not be allowed on Sunday and major holidays (i.e., Memorial Day, Independence Day, and Labor Day) in the existing areas. Landing tours in new areas north to the Haines/Juneau Borough line would be allowed, but only on weekdays. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in the existing areas of operation and a minimum distance of 1 mile in the new areas where feasible. Motorized snow vehicle use could be authorized on the icefield in the semi-remote recreation LUD only.



Figure 2-3
 Trail End and Juneau Icefield
 Research Camp Buffers

Juneau, Alaska

- Borough Boundary
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary
- Buffers on Ends of Trails
- JIRP 5-mile Buffer

Contour Interval 200 feet

Scale 1:300,000

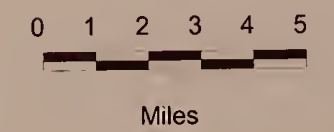






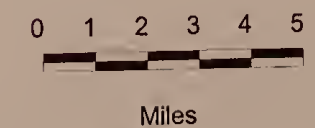
Figure 2-4
Alternative D

Juneau, Alaska

- Borough Boundary
- Proposed Flight Routes
- Proposed Landing Sites
- Proposed Minor Developments
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- ... Trails
- Roads
- ... 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary
- Trail End Buffers
- JIRP Buffers

Contour Interval 200 feet

Scale 1:300,000



All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Limiting landing tours to 6 days a week in the existing areas of operation, and allowing none on the three major holidays
- Limiting landings to weekdays only and allowing none on the three major holidays for the new areas of operation, including Antler Glacier and other areas north to the Haines/Juneau Borough line
- Establishing a minimum 1-mile buffer from wildlife in new areas of operation
- Not authorizing motorized snow vehicle tours in Remote Recreation LUDs
- Not authorizing landings within the trail buffers (0.5 mile at West Glacier Trail; 1 mile at Herbert Glacier Trail)

Alternative E—Proposed Action

Special use permits could be approved through 2007 under this alternative (Figure 2-5), which would limit helicopter tour landings to the existing authorized level of 19,039, with limited new locations and day restrictions, as shown in Table 2-5.

Table 2-5. Authorized Maximum Number of Landings Each Year—Alternative E

	2003	2004	2005	2006	2007
Number of landings authorized	19,039	19,039	19,039	19,039	19,039
% change (from previous year)¹	0	0	0	0	0
Average number of landings per day²	124	124	124	124	124

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30.

Landings in the existing operating areas would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from May 1 through the end of September and 5 days per week (Monday through Friday) in the new areas. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. The combination helicopter and fixed-wing tour with landings at Antler Glacier Lake would be allowed. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in existing areas of operations and 0.5 mile in the new areas, except for the combination fixed-wing and helicopter tour to Antler Glacier Lake, where both the fixed-wing and helicopter landings would be within the minimum wildlife buffer.³ Motorized snow vehicle use could be authorized on the icefield in areas with a LUD of Semi-Remote Recreation.

³ At the time that Proposed Action was published in the Federal Register (February 1999), the Antler Glacier Lake proposal had not been explored thoroughly enough to determine the distance between wildlife habitat and the proposed flight paths and associated landings. Further analysis has revealed that the Antler Glacier Lake proposal does not meet the minimum wildlife buffer requirements identified in the Forest Plan, nor does it meet the more restrictive wildlife buffer requirement identified in this alternative. For analytical purposes, however, and to retain all of the items proposed for review in the Federal Register notice, the Antler Glacier Lake proposal is included in Alternative E, and the impacts are disclosed in Chapter 4, Environmental Consequences.

All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the end of the Herbert Glacier Trail, as shown on Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination. Commercial tours would be allowed to land within these buffers before June 1 of the current operating season if snow conditions prohibit safe landings on the upper portions of the glaciers where landings have been authorized.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Limiting landings to weekdays only and allowing none on the three major holidays for the new areas of operation, including Antler Glacier Lake and other areas north to the Haines/Juneau Borough line
- Establishing a minimum 0.5-mile wildlife resource buffer in new areas of operation, with the exception of landings at Antler Glacier Lake
- Not authorizing motorized snow vehicle tours in Remote Recreation LUDs
- Not authorizing landings on Eagle Glacier or Death Valley
- Not authorizing landings within the trail end buffers on Herbert Glacier Trail or West Glacier Trail except as necessary during the early part of the season when snow and ice conditions higher up on these two glaciers prohibit safe landings.

Alternative F—Increase Authorized Icefield Landings 5 Percent Annually, with New Locations

This alternative (Figure 2-6) parallels the estimated growth in cruise ship passengers to Juneau, based on the Juneau Convention and Visitors Bureau 1999 report and personal communications with the JCVB (2001a, 2001b, 2001c). With this alternative, special use permits could be approved through 2007. This alternative would authorize an increase in the number of helicopter landings to 24,299 by the fifth year of operations. This is approximately a 5 percent increase each year from the 1999-2002 annual authorized level of 19,039, as shown in Table 2-6.

Table 2-6. Authorized Maximum Number of Landings Each Year—Alternative F

	2003	2004	2005	2006	2007
Number of landings authorized	19,991	20,990	22,040	23,142	24,299
% change (from previous year)¹	+5	+5	+5	+5	+5
Average number of landings per day²	131	137	144	151	158

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from early May through late September in the existing operating areas. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in existing areas of operations and a 0.5-mile distance in new areas, where feasible. The proposed tour allowing snow vehicles on the icefield would be allowed in areas with a LUD of Semi-Remote Recreation. The helicopter tours with landings on Eagle Glacier and in Death Valley, and landing tours in areas north to the Haines/Juneau Borough line would be allowed 7 days a week.

Alternative E - Proposed Action

- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin



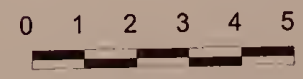
Figure 2-5
Alternative E -
Proposed Action

Juneau, Alaska

- Borough Boundary
- Proposed Flight Routes
- Proposed Landing Sites
- Proposed Minor Developments
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- ... Trails
- Roads
- ... 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary
- Trail End Buffers
- JIRP Buffers

Contour Interval 200 feet

Scale 1:300,000



Miles



Alternative F

HAINES BOROUGH
CITY AND BOROUGH OF JUNEAU

- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin



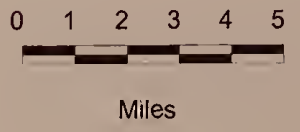
Figure 2-6
Alternative F

Juneau, Alaska

- Borough Boundary
- Proposed Flight Routes
- Proposed Landing Sites
- Proposed Minor Developments
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary
- Trail End Buffers
- JIRP Buffers

Contour Interval 200 feet

Scale 1:300,000



All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance buffer from the ends of the Herbert Glacier and Eagle Glacier trails, as shown on Figure 2-3. These trail end buffers, which do not exist under the existing special use permits, would create a no-landing zone to reduce recreationists' exposure to noise when they have reached their trail-end destination. Commercial tours would be allowed to land within these buffers before June 1 of the current operating season if snow conditions prohibit safe landings on the upper portions of the glaciers where landings have been authorized.

This alternative would respond to the helicopter tour companies' requests for increased landings and landings in new areas. It addresses the issues of noise and visual disturbance to residents, ground-based recreation users, and wildlife by imposing the same restrictions that are currently in the special use authorizations, with the addition of:

- Establishing a minimum 0.5-mile wildlife resource buffer in new areas of operation
- Establishing trail end buffers for landings at Herbert Glacier, West Glacier, and Eagle Glacier trails, where landings would be prohibited except as necessary during the early part of the season when snow and ice conditions higher on the glaciers would prevent safe landings
- Not authorizing motorized snow vehicle tours in Remote Recreation LUDs

Alternative G—Increase Authorized Icefield Landings 10 Percent Annually, with New Locations

This alternative (Figure 2-7) best represents the requests from the helicopter companies that conduct icefield landing tours. With this alternative, special use permits could be approved through 2007. This alternative would authorize an increase in the number of helicopter landings to 30,662 by the fifth year of operations. This is approximately a 10 percent increase each year from the 1999-2002 annual authorized level of 19,039, as shown in Table 2-7.

Table 2-7. Authorized Maximum Number of Landings Each Year—Alternative G

	2003	2004	2005	2006	2007
Number of landings authorized	20,943	23,037	25,341	27,875	30,662
% change (from previous year)¹	+10	+10	+10	+10	+10
Average number of landings per day²	139	151	166	182	200

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30.

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from early May through late September. Flight paths would remain generally the same as those currently used, although new flight paths to new landing areas would also be used. All flights would maintain a distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears in all areas, where feasible. The proposed tour allowing snow vehicles on the icefield would be allowed in Remote and Semi-Remote Recreation LUDs. All helicopter tours with landings in new areas north to the Haines/Juneau Borough line, as well as new landing tours at Eagle Glacier and Death Valley, would be allowed 7 days a week.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by maintaining restrictions contained in the current permits.

Alternative H—Preferred Alternative

Special use permits could be approved through 2007 under this alternative (Figure 2-8). This alternative would limit helicopter tour landings at the existing authorized level of 19,039 in 2003 and 2004 and would increase authorized landings 5 percent annually from 2005 through 2007. This alternative would authorize an increase in the number of helicopter landings to 22,040 by the fifth year of operations (2007). This is approximately a 5 percent increase each year from 2005 through 2007 compared to the 1999-2002 annual authorized level of 19,039, as shown in Table 2-8.

Table 2-8. Authorized Maximum Number of Landings Each Year—Alternative H

	2003	2004	2005	2006	2007
Number of landings authorized	19,039	19,039	19,991	20,990	22,040
% change (from previous year)¹	0	0	+5	+5	+5
Average number of landings per day²	124	124	131	137	144

¹ 2003 shows % change from 1999, 2000, 2001, and 2002 authorized use (19,039 landings).

² Based on a 153-day season, May 1 to September 30

Landings would be authorized between 8:30 a.m. and 8:00 p.m., 7 days a week from early May through late September in the existing operating areas and Death Valley. Flight paths would remain generally the same as currently used, although new flight paths to new landing areas would also be used. All flights would maintain a minimum distance of 1,500 feet from mountain goats, moose, wolves, swans, and bears, as well as Steller sea lions, humpback whales, harbor seals, and other marine mammals. No motorized snow vehicle use would be authorized on the icefield.

This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by imposing the following restrictions not contained in the current permits:

- Not authorizing motorized snow vehicle tours at any location on the icefield
- Not authorizing landings north of the 1995 EIS study area or on Eagle Glacier
- Not authorizing enclave development at Death Valley

Mitigating Measures and Conditions Common to all Action Alternatives

All Juneau Icefield commercial landing tours and associated activities will be conducted in accordance with the laws, regulations, or operational requirements that any other federal, state, or municipal government develops for the affected area of Juneau (for example, specific flight routes, altitudes, noise ordinances, limited number of flights, limited days or hours of operations, etc.).

- The following mitigating measures apply to the Juneau Icefield commercial landing tours and associated activities that are authorized by the Forest Service and administered through special use permits. For the most part, the locations of landing sites and their associated flight routes will be as identified and analyzed in the FEIS and the ROD. Actual flight routes and landing sites may vary for a variety of reasons, including other users, direction from the Juneau ATCT, weather, and landing site surface conditions. For all mitigations, exceptions may be made for aircraft and passenger safety. Aircraft and passenger safety will take precedence over these mitigating measures.

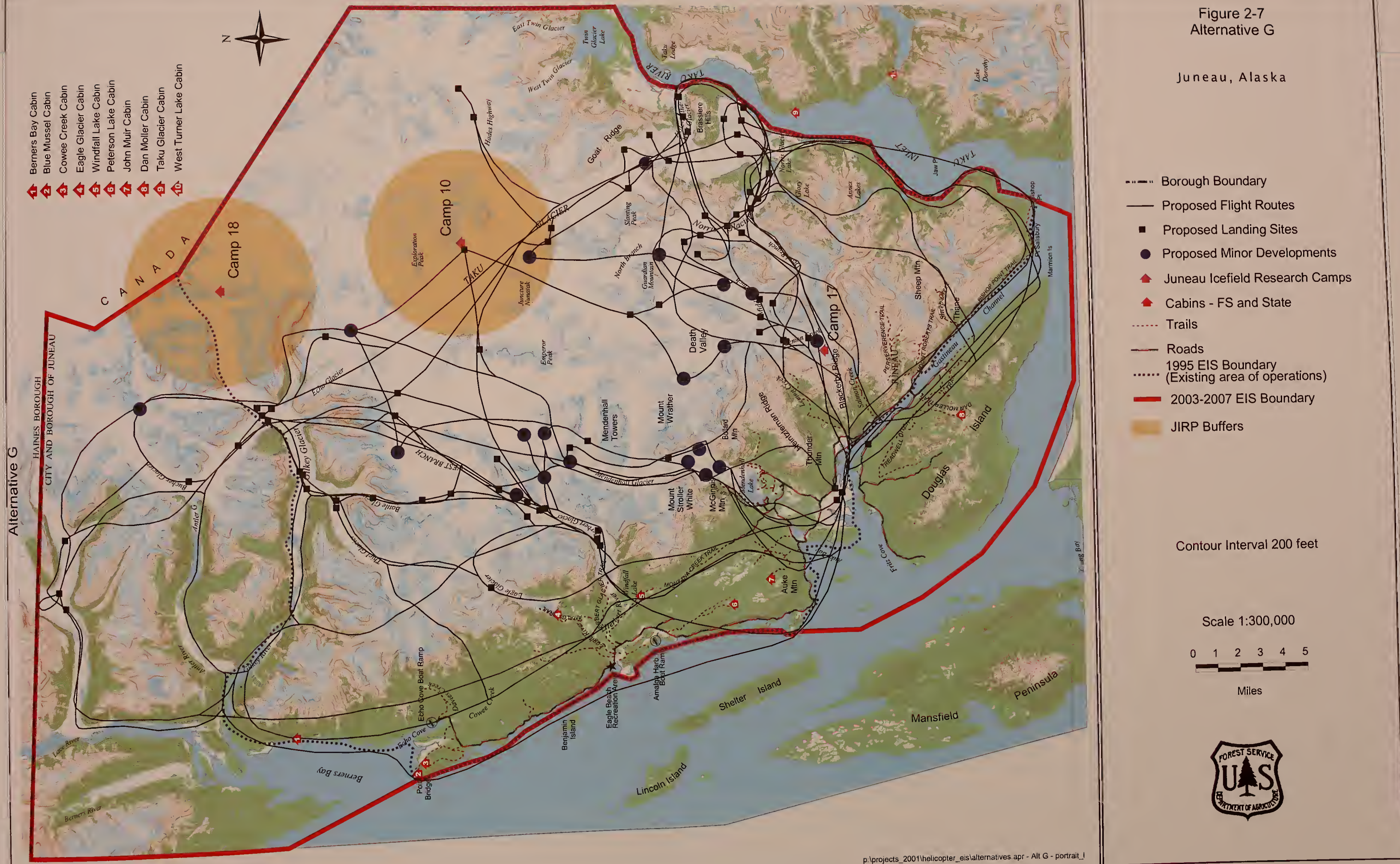




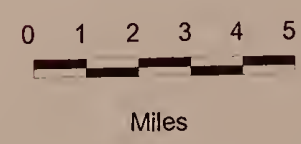
Figure 2-8
Alternative H

Juneau, Alaska

- Borough Boundary
- Proposed Flight Routes
- Proposed Landing Sites
- Proposed Minor Developments
- ▲ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- - - Trails
- Roads
- - - 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary

Contour Interval 200 feet

Scale 1:300,000



Many conditions are spelled out in each company's operating plan under the special use permit. A sample operating plan is included in Appendix C. Some of the specific terms include the following:

- Trails and enclave structures will be designed and located to blend with the icefield surroundings and reasonably minimize visual impact. Doghouses, for example, will be white. Exceptions will be made as necessary for safety, such as colored flagging or fencing to prevent visitors from straying into potentially hazardous areas.
- All structures, supplies, gear, etc. will be completely removed from the icefield at the end of the season.
- All food brought to the icefield will be stored in sealed plastic containers.
- All gray water, human waste and dog waste will be stored in sealed leakproof containers, and will be transported off site to an approved waste disposal site.
- No more than three 55-gallon drums of waste and wastewater may be stored at an activity site at any given time.
- Dog kennels will be cleaned four times a day, and dog waste will be removed from trails at least once each day.
- Propane will be used in all cooking and heating stoves, minimizing the possibility of any fuel leaks or spills on the icefield.
- Gasoline-powered generators may be used to charge radio batteries and power small handheld tools, but no more than 5 gallons of gasoline will be allowed on the icefield at any time.
- Gasoline and oil will be stored in tight metal or plastic containers to prevent spills.
- All petroleum products and equipment that are power by such will be handled, stored, and maintained in catchment basins and/or double-walled tanks, and absorbent cloths will be readily available in case of any spills.
- All visitors will be taught and expected to practice low-impact, Leave No Trace ethics.

The buffers for recreation, wildlife, and the Juneau Icefield Research Program (JIRP) are measured from these resources of concern. The specified distances can be attained vertically or horizontally as shown in two dimensions in Figure 2-9. The actual buffer distance would be measured in a 3-dimensional format, as opposed to the 2-dimensional line shown on Figure 2-9. This method of measurement is important for determining appropriate flight approaches and takeoffs from landing sites that are adjacent to mountain goat habitat, and maximizing distances away from the resources of concern.

In addition to the limitations discussed in the alternatives (Table 2-1), the operational guidelines outlined below will be required for all action alternatives (Alternatives B through H).

Mitigating Measures for Safety

All authorized operations must meet FAA requirements to achieve safe air operations regarding routing, airspace separation, and coordination with other operators. Each company under permit to provide commercial landing tours and associated activities on the Juneau Icefield is required to submit and abide by an Operating Plan that provides documentation of safety procedures, training, communications, emergency contact procedures, and mitigations designed to ensure safe outfitter and guiding operations. The Operating Plan must be approved by the Forest Service and will be a part of the special use permit. As a minimum, each Operating Plan will include the following terms and conditions:

1. All helicopters and pilots will meet certification and maintenance requirements of the FAA.
2. All flight operations will be conducted under the jurisdiction of the FAA and will adhere to FAR Part 135 requirements.
3. All flight operations must meet FAA requirements to achieve safe air operations (routing, airspace separation, and coordination with other operators).
4. Authorized operators will be required to provide a professional Avalanche Hazard Analysis for all proposed landing sites prior to an approval for minor development occupancy and use. Landings involving minor development occupancy and use will not be authorized in areas where avalanche hazards have been identified.
5. Due to the constantly changing character of the glaciers, landing sites can vary on a daily basis and need to be regularly evaluated for their suitability. The following are factors that must be considered when choosing a landing site:
 - Crevasses - The landing site should be relatively free of crevasses in the immediate vicinity to allow for safe egress of passengers and to assure a stable landing site for the helicopter. If landing on snow, extra caution needs to be exercised in evaluating the potential for crevasses that are hidden by the snow.
 - Icefalls - Any hanging glacier within the immediate vicinity of the ground site must be regarded as a possible hazard. Landing areas should be far enough away from any icefalls to minimize the possibility of falling ice reaching the site.
 - Avalanches - Most slopes on the Juneau Icefield that extend past 4,000 feet in elevation can retain a substantial snow pack throughout the summer season. The potential instability of the snow pack, particularly those having slope angles between 20 degrees and 50 degrees, should be taken into account when evaluating a possible glacier landing site. Sites should be located well away from any such slope, especially after heavy snow fall on higher elevations.
 - Rockfall - All glacier landing sites should be located clear of any massive rock outcrops that may present a danger from rockfall. All rock outcrops should be considered potentially loose.
 - Site Grade - Selected sites must have a nearly level grade. Sites that are not level increase the chances of the helicopter slipping during landing, takeoff, or while sitting on the ice, possibly resulting in an accident.

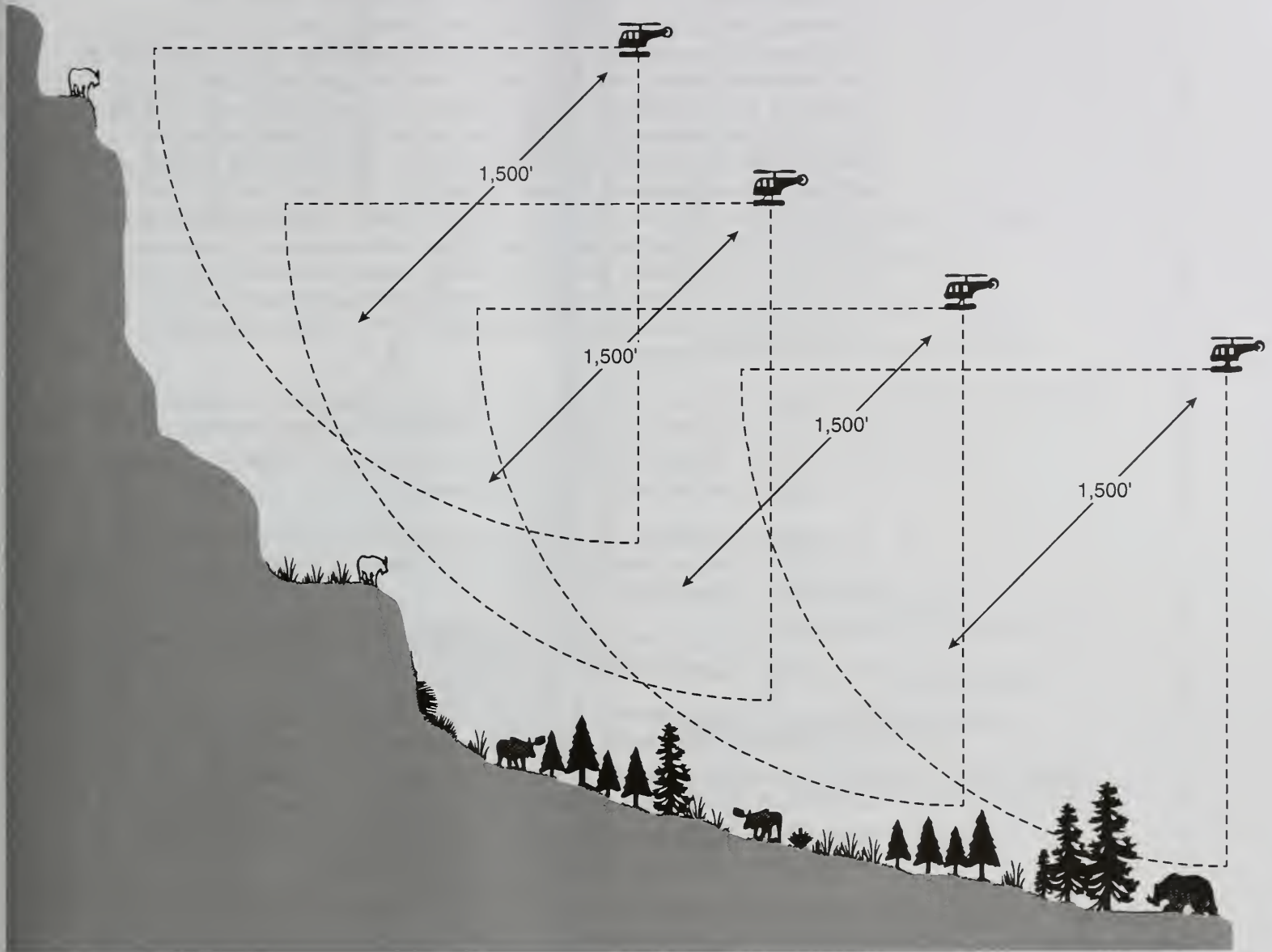
Mitigating Measures and Conditions for Wildlife

The intent of these mitigating measures and conditions is to minimize adverse impacts to wildlife resources.

1. Helicopters will maintain a 1,500-foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. Where feasible, flight paths should avoid known mountain goat kidding areas from May 15 through June 15. Pilots will not compromise safety. This 1,500-foot minimum buffer will be adopted as a condition for black and brown bear, wolves, moose, trumpeter swans, and marine mammals including Steller sea lions, humpback whales, and harbor seals, under all alternatives except Alternative E. The only exception under Alternative E is for the Antler Glacier Lake landing, as described earlier in this chapter under the description of the Proposed Action.
2. A 1-mile buffer will be established between helicopter landing sites and important mountain goat kidding areas identified on Figure 2-10 during the kidding season of May 15 to June 15 each year, where feasible.

At historically used sites on Norris, Mendenhall, Herbert, and Gilkey glaciers, if the 1-mile or more buffer cannot be feasibly achieved, a minimum 1,500-foot buffer will

Figure 2-9. Standard 1,500-Foot Wildlife Buffer



be maintained. If landing activities occur within the 1-mile buffer, additional mitigation measures will be followed, including approaching landing sites from the center of the glacier (as far from goats and kidding habitat as possible) and approaching landing sites below the elevation of goats, if terrain and weather allow. If landing activities occur within the 1-mile buffer, monitoring will help determine if long-term habitat productivity and viability of mountain goat populations is being maintained, and if additional mitigation measures are warranted. Monitoring at these sites will include mapping habitat use before and during the kidding season, and observing behavior of kid groups during overflights. Monitoring will continue until sufficient data are gathered to determine if negative effects are occurring to mountain goats, or if other mitigation measures need to be applied. The Forest Service has no indications of mountain goat population declines, adverse impacts, or problems in these areas. On Mendenhall and Herbert glaciers, landing activities will be moved from the lower sites to the upper sites as soon as snow and ice conditions allow. At newly proposed landing sites, the more restrictive 1-mile buffer will be applied during the kidding season.

3. A minimum 1,320-foot (0.25-mile) clearance will be maintained from all active bald eagle nests, as required by an Interagency Agreement between the USFWS and the Forest Service. All nests are considered active from March 1 to May 31. Nests used for nesting activity are considered through August 31.
4. A minimum of a 3,000-foot vertical and horizontal buffer will be maintained from critical Steller sea lion habitat designated by the NMFS on Benjamin Island (50 CFR Part 226.202) (Figure 2-10).
5. If wildlife are observed in areas not identified on Figure 2-10, pilots must not hover, circle, harass, or pursue wildlife in any way.
6. Permitted helicopter operators will develop an educational/interpretive display for helicopter pilots and clients detailing current and appropriate aircraft behavior relative to wildlife. Emphasis should be on the importance of maintaining the minimum specified wildlife resource buffers to protect the animals' health and well-being. The Forest Service and the permitted operator(s) will agree on the format of this message as part of the special use permit Operating Plans.

Mitigating Measures for Recreation

The intent of the following mitigating measures is to minimize adverse impacts to recreationists and the recreation resources in the Tongass National Forest. The affected recreation resources include the Forest Service-managed trails and cabins in the Juneau Ranger District, but does not include the Heintzleman, Blackerby, and Mt. McGinnis ridge routes because these are not designated trails managed by the Forest Service. These mitigating measures also do not apply to trails and cabins on non-NFS land.

1. A buffer distance of 1,500 feet (vertically and horizontally) from trails, cabins, and recreation sites is recommended to minimize noise impacts and visual impacts to recreationists. All operations must (except in emergency) maintain the specified buffers from Forest Service recreation facilities, including trails, cabins, and developed recreation sites.

The trails that this mitigating measure applies to include Montana Creek, Spaulding Meadows, Auke Nu, Herbert Glacier, Amalga (Eagle), Windfall, Peterson Lake, East Glacier, West Glacier, and Nugget Creek. The cabins that this mitigating measure applies to include Eagle Glacier, Berners Bay, John Muir, Peterson Lake, and Dan Moller.

- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin



HAINES BOROUGH
CITY AND BOROUGH OF JUNEAU

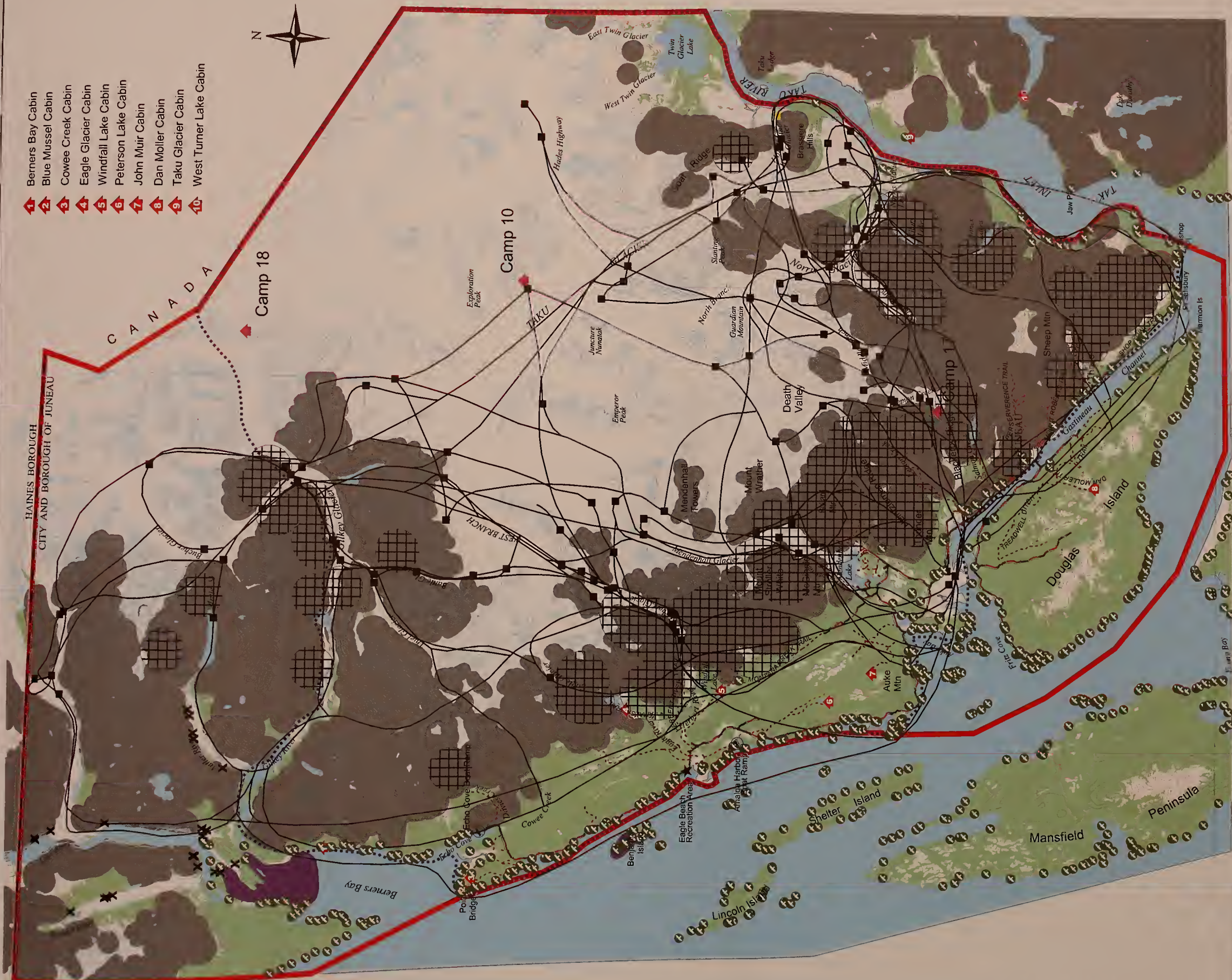


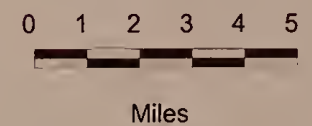
Figure 2-10
Wildlife Areas

Juneau, Alaska

- x Swan Nest
- Eagle Nest
(Inventoried 1979 - 2001)
- - - Borough Boundary
- Requested Flight Routes
- Requested Landing Sites
- ▲ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- ... Trails
- Roads
- 1995 EIS Boundary
(Existing area of operations)
- 2003-2007 EIS Boundary
- Mountain Goat Summer
Habitat with buffer
- Mountain Goat Kidding Habitat
with buffer (May 15 - June 15)
- Marine Mammal Habitat

Contour Interval 500 feet

Scale 1:300,000



There is one exception to the specified 1,500-foot recreation resource buffer due to established flight routes and altitudes required for safety in the immediate airport vicinity. The trails near the Mendenhall traffic (West Glacier Trail, Spaulding Meadows Trail, the southerly section of Montana Creek Trail, and the Auke Nu Trail leading to John Muir cabin) may experience icefield landing tour over-flights lower than the 1,500-foot buffer due to established flight routes and altitudes that are maintained for safety in this high-use air traffic area in the Juneau Airport vicinity. Shifting the flight paths away from these recreation resources would displace the noise impacts to residential areas. Additionally, requiring pilots to climb to the higher altitudes (1,500 feet AGL) in this vicinity would cause an unsafe situation due to other air traffic that is directed to fly at specific altitudes in this congested air traffic area. Trail users should expect to experience noise and visual disturbance associated with tour helicopters and other aircraft in this recreation resource area.

2. The Mendenhall Glacier Recreation Area (MGRA) is off-limits to helicopter landing tours under all alternatives.
3. Minor development activities, such as dogsled mushing camps or large group facilities, are limited to areas that have natural physical barriers such as mountain ridges or terrain that prevent the sight and sound of these activities from reaching other use areas. The specific location and the distance between these activities and landing sites depend on the weather conditions, seasonal changes of icefield surface conditions, timing, nature of the activity, and threshold of use. Use and occupancy of any site will be determined on a case-by-case basis.

Mitigations for Juneau Icefield Research Program

The intent of the following JIRP mitigating measures is to avoid unnecessary disturbance to JIRP activities. Research activities such as seismic data collection can be adversely affected by nearby aircraft operation. In addition, the frequent helicopter tour traffic disturbs the educational setting for the JIRP students and instructors. The following mitigating measures limit the helicopter landing tour operators to avoid the JIRP facilities and participants so they can carry out their research activities under optimal conditions. JIRP Camp 10, Camp 17, and Camp 18, and the landing buffers are shown on Figure 2-3. The following limitations are intended to minimize effects to the JIRP:

1. All helicopter operations will work in cooperation with JIRP to avoid any active JIRP camp or field activities.
2. All helicopter landing operations will maintain a minimum 5-mile landing buffer from Camps 10 and 18 during JIRP operations (unless otherwise agreed to among JIRP, the helicopter tour operators, and the Forest Service).
3. All helicopter flight operations are recommended to maintain a minimum 1,500-foot above ground level (AGL) buffer from all JIRP camps and activity areas.

Monitoring

The Forest Service will conduct monitoring activities to determine whether the mitigating measures described above are effective and meet the intent of the special use. Monitoring activities will include field observations along Forest Service trails, Forest Service cabins, and wildlife areas. The Forest Service also will conduct on-site inspections of the permitted outfitter guided activities on the Juneau Icefield. Comments provided by Juneau residents and Tongass National Forest users will be reviewed as part of the monitoring program.

If the Forest Service finds the mitigating measures are not effective in their intent, additional requirements, limitations, or more mitigating measures may be developed and

incorporated as stipulations to the commercial use permit authorizations. All operators will be asked to report observations of mountain goats, brown and black bears, moose, wolves, and wolverines to the Forest Service by November 1 of the operating year. All operators will be asked to report to the USFWS office and the Forest Service any eagle nests found that are not indicated on Figure 2-10.

Alternatives Eliminated from Detailed Study

Several options were considered for the DEIS, but were not carried forward as alternatives. These options and the reasons for not considering them are discussed below.

Satellite Heliports

All helicopter flights that are in association with the Juneau Icefield commercial landing tours originate from the Juneau Airport or other CBJ-approved heliports (see Figure 1-5). Some Juneau residents have promoted the concept of satellite heliports as the most viable solution to the noise problem in Juneau (TAC, 1999b, 2000b). Table 2-9 lists some of the sites that have been considered. The CBJ has recently released Michael Baker and BridgeNet International's *Alternative Heliport Site Analysis* (2001) that evaluates and recommends alternative heliport sites. As discussed in Chapter 1, under *Current and Ongoing Activities*, recommended sites include Montana Creek in the north and Dupont in the south. The analysis also found that if flightseeing tours moved from the Juneau Airport and the Era base to these two alternative sites, the number of homes in the 6,000-foot (1.1-mile) noise corridor would be reduced from 6,037 to zero (Michael Baker and BridgeNet International, 2001). The results of this analysis are currently being reviewed and action is being considered by the CBJ.

While the Forest Service cannot require relocation of private heliports, should satellite heliport(s) be developed, the Forest Service would evaluate the effects of new flight paths in association with the landing tours, and document that analysis and proposed changes in accordance with NEPA and Forest Service policy and procedures. Because special use permits resulting from this 2002 decision would be issued and operating well before a satellite heliport could be approved and operational, this alternative was eliminated from further study.

Forest Service-Designated Flight Paths

The alternative of authorizing only those helicopter landings on the icefield that used Forest Service-designated flight paths was dismissed for several reasons. As discussed in Chapter 1, the Forest Service does not have the authority to stipulate or enforce flight paths for aircraft. In addition, assuming that heliports remain at the current locations, the flight paths used are generally dictated by the weather. Because of the proximity of residential areas to one another, moving flight paths one way or the other would reduce impacts to some residents, but would increase impacts to others by rerouting flights over other residents. Therefore, directing the helicopter tour companies to fly specific routes would not be within Forest Service authority and would not decrease impacts but, rather, would displace them to other areas.

Alternative routes, altitudes, zones, poor weather route variables, and scheduling of helicopter flights were considered under the CBJ-contracted noise studies to identify possible new routes. This involves modeling the effects of differing flight densities (i.e., spreading out individual aircraft in a flight, or group, vs. decreasing spacing between aircraft) and of differing number of aircraft per flight (flights of 5 vs. flights of 12, for example). Because the effects of these scenarios are speculative at this time, this alternative was eliminated from further study.

Table 2-9. Possible Satellite Heliport Locations

1. Montana Creek: Area at the confluence of Montana Creek and McGinnis Creek.
2. Lemon Creek: Area upstream from prison known as Hidden Valley.
3. Big Rock Dump: Area bounded by Taku Oil, access road to Taku Oil, Gastineau Channel, and Alaska Marine Lines barge facility.
4. Little Rock Dump.
5. Mine Portal: AJ Mine Portal at Sheep Creek.
6. Eaglecrest: Eaglecrest Ski Area parking lot.
7. Eaglecrest Quarry: Rock quarry west of Eaglecrest Road approximately 0.5 mile from end of single lane, gravel road at approximately mile 0.7 of Eaglecrest Road.
8. Peterson Creek: North of Glacier Highway on firewood road at approximately mile 25 Glacier Highway near Peterson Creek.
9. Barge: Barge to be located at suitable moorages.
10. Gastineau Channel East: Area at lower end of Gastineau Channel known as Dupont.
11. Gastineau Channel West: CBJ lands on west side of lower Gastineau Channel just up-channel from Marmion Island.
12. West Douglas: CBJ lands on the west side of Douglas Island.
13. Herbert River: Lands south and west of the Glacier Highway Bridge crossing the Herbert River. There are other possible locations in this vicinity.
14. Bridget Cove: CBJ lands out Glacier Highway north of Bridget Cove.
15. Yankee Cove: Lands out Glacier Highway around Yankee Cove.
16. Auke Rec: Rock Quarry on new Auke Rec Cut-off road. There are other possible sites in the vicinity.
17. Visitor Center: Mendenhall Glacier Visitor Center/Dredge Lakes area. There are a number of possible sites in the vicinity. An example is the area east of the Visitor Center access road along the old road. Another example is an area near and south of the bus parking lot.
18. Rifle Range: The rifle range on Montana Creek Road.
19. Airport: Juneau International Airport.

Maximum Requested Landings (41,691)

Helicopter companies were asked to provide their estimated maximum number of landings per year through 2006. Collectively, they added up to 41,691 landings, and it appears that each company assumed it would get the full share of any estimated market growth. Cruise ship passenger growth over the past 15 years has averaged approximately 10 percent annually, and is forecast at 5 percent annually beyond 2000. Actual helicopter landings leveled off at less than 17,000 landings per year in 1998 through 2000, possibly due to poor weather, market saturation, or other reasons. Because there appears to be no analytical basis for the nearly 42,000 landings, this alternative was eliminated from further study.

Tours Concentrated in One Area

One suggestion has been made to concentrate the majority or all of the flights and associated landings into one area of the icefield so that helicopter flight impacts would

also be concentrated in one area, thus promoting the expectation that there would be few or no helicopter tour overflights in other areas. This alternative was eliminated from consideration because it is not practical. Lower Taku Glacier is the most logical place to concentrate tours if the intent is to reduce noise impacts to Juneau residents and on-the-ground recreationists. The terrain of Taku Glacier is such that it could probably not accommodate all the current landings, and those landings that could be accommodated would probably not produce an acceptable user experience. Because it cannot be practically implemented, this alternative was eliminated from further consideration.

Comparison of Alternatives

This section summarizes the environmental consequences of the alternatives in a comparative format. In the text, the alternatives are compared and evaluated relative to the significant issues identified in Chapter 1. Table 2-10 summarizes how each alternative performs against the units of measure established in Chapter 1 as the criteria for comparing how well the alternatives address each issue.

Issue 1: Noise Impacts to Residents

Current complaints from residents indicate that many people believe that commercial helicopter flights operate for too many hours each day, for too many days each week, and that there are too many flights in total and too many helicopters flying together. Residents also suggest that the helicopters fly too low and do not abide by minimum altitude guidelines. As noted earlier, the Forest Service does not have authority to enforce minimum altitude guidelines except on NFS land where resource protection buffers have been established. The approach to this issue is, therefore, to focus on the number of permitted landings (which corresponds directly to the number of flights) and the days and hours of operation.

- Numbers of flights – The No-Action Alternative would allow no landings; therefore, there would be no flights associated with landings. If landings were not allowed, tourists could opt for fixed-wing or helicopter flightseeing tours that did not include a landing at the icefield, and it is not possible to determine how much of that activity would occur.

Of the action alternatives, Alternative B would authorize the least number of landings per year (11,881 by 2007). Alternative B would authorize 29 percent fewer landings than occurred in 1999, offering an improvement over the current situation. The number of authorized landings progressively increases in Alternatives C, D, E, H, F, and G, respectively, with Alternative G authorizing 30,662 landings per year, or 84 percent more than occurred in 1999. Under Alternative H, the number of authorized landings would total 22,040 by 2007, 32 percent more than occurred in 1999 and 16 percent more than Alternatives D and E.

- Frequency of flights – Of the action alternatives, Alternative B would offer the lowest average number of landings per day (112), 3 percent more than the average in 1999. Alternative E, the Proposed Action, would offer the lowest average number of landings per hour (10.8). This difference is indicative of a tradeoff between spreading flights and landings over more days of the week and more hours of the day, rather than focusing flights and landings in fewer days a week and/or fewer hours per day, as in Alternative B. Aside from this tradeoff, the action alternatives generally progress from Alternative B, with the lowest average frequency of landings (112 per day; 11.8 per hour), to Alternative G, with the highest average frequency of landings (200 per day; 17.4 per hour). Alternative H would authorize 144 landings per day, 12.5 landings per hour,

Table 2-10. Summary Comparison of Alternatives

Units of Measure	Actual 1999 ¹	Alternative							
		A	B	C	D	E	F	G	H
Number of Flights									
Number of landings per year	16,706	0	11,881	16,706	19,039	19,039	24,229	30,662	22,040
Percent change from actual 1999	0	-100	-29	0	+14	+14	+45	+84	+32
Frequency of Flights ²									
Average landings per day (by 2007)	109	0	112	131	149	124	158	200	144
Percent change from actual 1999	0	-100	+3	+20	+37	+14	+45	+83	+32
Average landings per hour (by 2007)	9.5	0.0	11.8	11.4	13.0	10.8	13.7	17.4	12.5
Percent change from actual 1999	0	-100	+24	+20	+37	+14	+44	+83	+32
Hours of Operation									
Hours landings can occur	8:30 a.m. to 8:00 p.m.	not applicable	8:30 a.m. to 6:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.	8:30 a.m. to 8:00 p.m.
Number of hours per day	11.5	0	9.5	11.5	11.5	11.5	11.5	11.5	11.5
Percent change from actual 1999	0	-100	-17	0	0	0	0	0	0
Days of Week of Operation									
Days landings can occur	any day of the season	none	Monday thru Friday, excluding holidays ³	Monday thru Saturday, excluding holidays ³	Monday thru Saturday, excluding holidays ³ in existing areas; Monday thru Friday, excluding holidays, in new areas	any day in existing areas; Monday thru Friday, excluding holidays, in new areas	any day of the season	any day of the season	any day of the season
Number of days per week landings can occur	7	0	5	6	6 in existing areas; 5 in new areas	7 in existing areas; 5 in new areas	7	7	7
Number of days per year landings can occur	153 ⁴	0	106	128	128	153	153	153	153
Percent change from actual 1999	0	-100	-31	-16	-16	0	0	0	0
Proximity of Flight Paths to Recreation Trails and Cabins									
Flight paths	not applicable	not applicable	same as now	same as now	same as now, plus new areas north of 1995 EIS area	same as now, plus new areas north of 1995 EIS area	same as now, plus Eagle Glacier, Death Valley, and new areas north of 1995 EIS area	same as now, plus Eagle Glacier, Death Valley, and new areas north of 1995 EIS area	same as now, plus Death Valley
Buffers at trail ends	none	not applicable	West Glacier and Herbert Glacier trails	West Glacier and Herbert Glacier trails	West Glacier and Herbert Glacier trails	West Glacier and Herbert Glacier trails, with early season exceptions	West Glacier, Herbert Glacier, and Eagle Glacier trails, with early season exceptions	none	none
Proximity of Flight Paths to Known Critical Wildlife Habitat									
Buffer zone around habitat	1,500 feet	no limits	1,500 feet	1,500 feet	1,500 feet in existing areas; 1 mile in new areas	1,500 feet in existing areas; 0.5 mile in new areas, except Antler Glacier Lake	1,500 feet in existing areas; 0.5 mile in new areas	1,500 feet	1,500 feet
Landing Tours in New Areas									
New areas where landings would be permitted	not applicable	none	none	none	North of 1995 EIS area	North of 1995 EIS area	North of 1995 EIS area, Eagle Glacier, Death Valley	North of 1995 EIS area, Eagle Glacier, Death Valley	Death Valley

¹ This year was chosen for comparison because the Noise Assessment (Acentech, 1999) was conducted in 1999.

² Primary use season: May 1 – September 30, a total of 153 probable days of operation. Note that use may occur during the shoulder season, prior to May 1 and after September 30.

³ Holidays include Memorial Day, Fourth of July, and Labor Day.

⁴ In 1999, the season was defined as May 15 – September 15, a total of 124 days. To make the comparison with other alternatives, the actual 1999 season length has been redefined here to include 153 days (May 1 – September 30).

slightly more landings per hour than Alternative B. The No-Action Alternative would authorize no landings; the frequency of substitute flights that would not land has not been determined.

- Hours of operation – Of the action alternatives, only Alternative B limits the hours of operation compared to current practice. Landings would be permitted from 8:30 a.m. until 6:00 p.m., a 9.5-hour operating day that would leave the evening hours quieter than currently. All of the other action alternatives would have an 11.5-hour operating day, from 8:30 a.m. to 8:00 p.m., the same as the current operating day. The No-Action Alternative would authorize no landings; the operating hours of substitute flights that would not land has not been determined.
- Days of week of operation – Of the action alternatives, Alternative B would place the greatest limits on the number of operating days. Landings would be allowed on Monday through Friday of each week during the operating season, with the exception of Memorial Day, the Fourth of July, and Labor Day. No landings would be authorized on those holidays. These restrictions would offer residents the most opportunity for quiet weekends and holidays. Alternatives C and D would not allow landings on Sundays and holidays, which should result in less aircraft noise over residential areas on those days. Alternatives E, F, G, and H would allow landings in some or all icefield areas 7 days a week, so there would be no days during the season when landing tours would not be authorized. The No-Action Alternative would authorize no landings; substitute flights that would not land could take place on any day of the week.

In sum, of the action alternatives, Alternative B would offer the lowest number of landings (and flights) per year, the lowest average number of landings per day, the fewest hours of operation per day, and the fewest days of the week during which landings would be authorized. It would provide residents with the most opportunity to experience quiet in their neighborhoods during the flightseeing season. Alternatives C, D, E, H, F, and G would offer progressively fewer opportunities, respectively, for quiet in residential areas. The No-Action Alternative, with no authorized landings, could achieve the quietest environment if not all the landing-associated flights were replaced by flights that would not land.

Issue 2: Noise Impacts to Recreationists

Some recreationists indicate that hearing the sound of helicopters negatively affects the quality of recreation experiences taking place in otherwise quiet settings. Like noise impacts to residents, the approach to this issue has been to focus on the number of permitted landings (which corresponds directly to the number of flights) and the days and hours of operation. Additionally, relative impacts to recreationists were evaluated based on the proximity of flight paths to specific recreational settings.

- Frequency of flights and hours of operation – As noted above under Noise Impacts to Residents, Alternative B would offer the lowest number of landings (and flights) per year, the lowest average number of landings per day, and the fewest hours of operation per day. Alternatives C, D, E, H, F, and G would authorize progressively more landings, respectively, increasing the frequency and length of exposure to flight noise.
- Days of week of operation – Of the action alternatives, Alternative B would place the greatest limits on the number of operating days. Landings would be allowed on Monday through Friday of each week during the operating season, with the exception of Memorial Day, the Fourth of July, and Labor Day. No landings would be authorized on those holidays. These restrictions would offer recreationists the most opportunity for quiet weekends and holidays at all recreation sites, an improvement over the current experience. Alternatives C and D would not allow landings on Sundays and holidays anywhere on the icefield,

which would also be an improvement over the current situation, and should result in less aircraft noise in all recreation areas on those days. Alternative D would also restrict landings to Monday through Friday in areas north of the 1995 EIS boundary, so that additional flight activity in that area, while adding more noise than currently occurs, would limit the change to only 5 days per week.

Alternative E would allow icefield landings in existing areas of operation 7 days per week and in new areas 5 days per week. The effect on recreationists in specific areas cannot be determined because the relative use of various landing sites is not known. Depending on how landings were concentrated in the various areas, the overall impact on recreationists could be better in some areas and worse in others. Alternatives F, G, and H would allow landings in all icefield areas 7 days a week, so there would be no days during the season when landing tours would not be authorized. Because these three alternatives would authorize more landings than occurred in 1999, recreationists would likely be exposed to more noise than currently in at least some locations. The No-Action Alternative would authorize no landings; substitute flights that would not land could take place on any day of the week.

- Proximity of flight paths to recreation trails and cabins – Under Alternatives B and C flight paths would be similar to current flight paths, while Alternatives D, E, H, F, and G would add landings (and flights) to progressively more areas, including the area north of the 1995 EIS boundary (Alternatives D, E, F, and G), Eagle Glacier (Alternatives F and G), and Death Valley (Alternatives F, G, and H). Because of their landings at Eagle Glacier and/or Death Valley, Alternatives F, G, and H would reduce the quiet and solitude currently provided to recreationists in those areas. Alternative H would not authorize enclave development at Death Valley, so impacts to recreationists would be minimal in this area.

To reduce the impact of landings on some trail users, Alternatives B, C, D, E, and F include no-landing buffers around the ends of the West Glacier and Herbert Glacier trails. Alternative F also includes a buffer at the end of Eagle Glacier Trail, a buffer that is not needed under the other alternatives because they do not authorize any landings at Eagle Glacier.

In sum, of the action alternatives, Alternative B would offer the lowest number of landings (and flights) per year, the lowest average number of landings per day, the fewest hours of operation per day, and the fewest days of the week during which landings would be authorized. It would provide recreationists with the most opportunity to experience quiet in their recreational pursuits during the flightseeing season. Alternatives C, D, E, H, F, and G would offer progressively fewer opportunities for quiet in recreational settings. The No-Action Alternative, with no authorized landings, could achieve the quietest recreational environment if not all the landing-associated flights were replaced by flights that would not land.

Issue 3: Impacts to Wildlife

Concern has been expressed that the stress from helicopter activity could cause habitat abandonment or long-term population declines for some species; however, by adopting the guidelines outlined in this EIS, all of the action alternatives would likely have negligible effects on black bear, brown bear, gray wolf, bald eagle, Steller sea lion, trumpeter swan, moose, mountain goat, or harbor seal populations, with the exception of the combination fixed-wing/helicopter flights and landings at Antler Glacier Lake (Alternative E). Additionally, it has been determined that the frequency of flights and hours of operation, two measures noted in Chapter 1 as criteria for evaluating the effects of alternatives on wildlife, do not provide any meaningful differentiation among

alternatives. Only a single criterion, proximity of flight paths to known critical wildlife habitat, is used here to compare alternatives with respect to their effects on wildlife.

- Proximity of flight paths to known critical wildlife habitat – Given the conclusion noted above that the alternatives would have negligible effects on most species, the focus of analysis was on mountain goats, the species that seemed most likely to be adversely affected by helicopter flights and landings on the icefield. All action alternatives include at least a 1,500-foot buffer around identified mountain goat habitat, as well as a buffer around mountain goat kidding habitat from May 15 to June 15.

Under those action alternatives that include landings in the area north of the 1995 EIS boundary (i.e., Alternatives D, E, F, and G), all but G include a wider, 0.5- or 1.0-mile, buffer around mountain goat habitat. All action alternatives, regardless of buffer size, would have negligible effects on mountain goats.

The single exception to the 1,500-foot-buffer guideline appears under Alternative E, the Proposed Action. The proposed combination fixed-wing/helicopter flights and landings at Antler Glacier Lake was defined as part of the Proposed Action prior to analysis that indicated it could not be accomplished without impinging on the buffer zone both at the lake and along the flightpath, which follows the Antler River. Unlike the other action alternatives, Alternative E could cause low to moderate impacts to black bear, gray wolf, moose, mountain goats, and trumpeter swans in the vicinity of Antler Glacier Lake and the Antler River.

Issue 4: Impacts in New Areas

Allowing landings in areas previously closed to commercial tours could adversely affect recreational experiences and wildlife in those areas. Although those issues are addressed above, the issue of impacts in new areas was also evaluated separately. The single evaluation criterion is whether or not landings are permitted in new areas.

Landing tours in new areas – Of the action alternatives, only Alternatives B and C would limit landings to the current areas of operation, with no new areas added. Alternatives B and C, as well as the No-Action Alternative, would have no impacts on new areas. Alternatives D, E, F, and G would allow landings in the area north of the 1995 EIS boundary, adding impacts to that area. Alternatives F, G, and H would allow landings at Death Valley, adding impacts to that area. Alternatives F and G would also add Eagle Glacier to the authorized landing locations. Alternatives F and G would therefore open up the greatest amount of area to the effects of commercial helicopter landing tours.

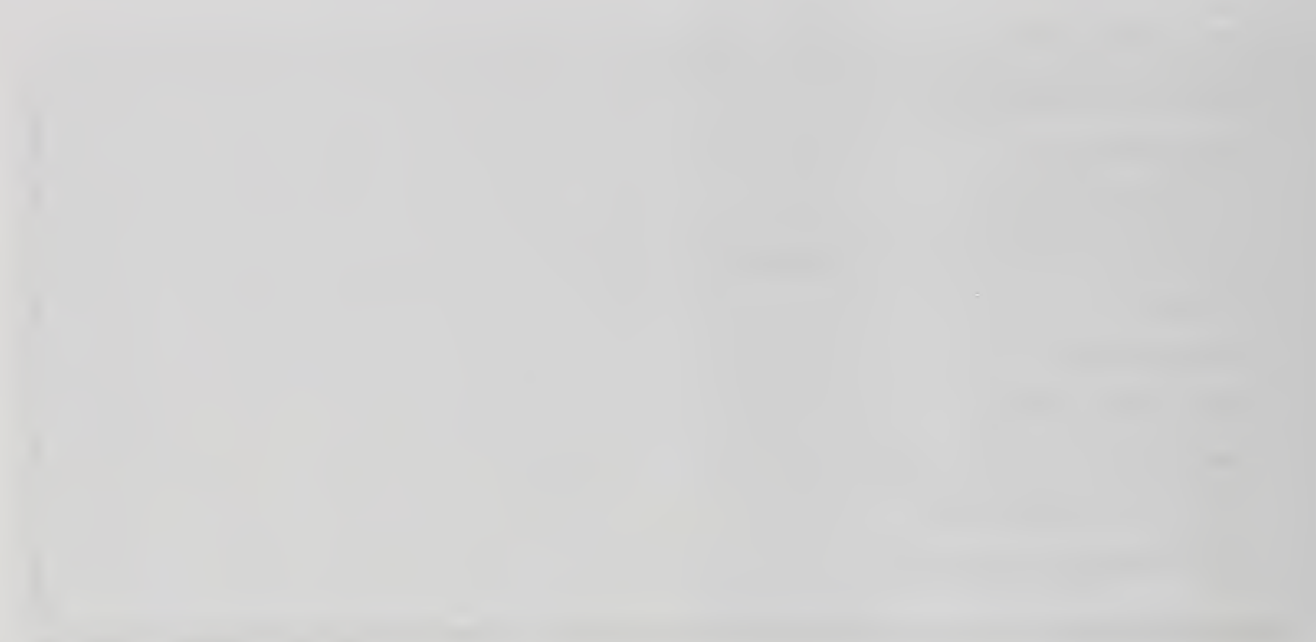
CHAPTER 3

AFFECTED ENVIRONMENT

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CHAPTER 3

THEORY OF THE EARTH



Chapter 3

Affected Environment

Introduction

This section presents the affected environment, describing baseline data for the area affected by the Proposed Action or alternatives. The four primary components of the affected environment, reflecting the four issues defined in Chapter 1, are area residents, recreationists, wildlife, and new areas for proposed operations. The current roadless area, acoustical, safety, and air quality environments are also described.

Area Residents

Area residents include all the people living in the CBJ. According to the Social and Economic Resource Report (Forest Service, 2000a), Juneau's population is approximately 30,800 people; the population has grown faster than the state average since 1995.

Responses to a survey made by the McDowell Group in 1998 indicate the following geographic distribution of residents in CBJ: 40 percent of the population lives in the East Mendenhall Valley, 15 percent in the Salmon/Lemon/Switzer Creek area, 15 percent in West Mendenhall/Out the Road, 13 percent in downtown Juneau/Thane, 12 percent in Douglas/West Juneau, and 5 percent in North Douglas (McDowell Group, 1998).

According to the *Alternative Heliport Site Analysis* (Michael Baker and BridgeNet, 2001), there are 2,260 residences in the 6,000-foot (1.1-mile) noise corridors along current helicopter flightseeing routes originating from the Juneau Airport and 3,777 residences in the 6,000-foot noise corridors for tours out of Era's heliport. These figures, however, do not include the total number of residents that hear helicopter noise from the flight routes.

The economy of Southeast Alaska has been growing and changing significantly over the last several decades. Currently, the region is adjusting to changes in the wood products industry. Two large pulp mills and several of the larger sawmill operations have closed down in the last several years, and timber harvesting from the Tongass National Forest has steadily declined during the same period. Reviews of regional employment and income data indicate that while manufacturing has declined, retail and service employment has steadily increased. This is likely related to the significant increases in tourism operations throughout the region. Although this accounts for continued growth in terms of employment, the wages associated with service and retail jobs have not made up for the loss of higher-wage manufacturing jobs (Forest Service, 2000a).

Government plays a significant role in the economy of Juneau. State, local, and federal agencies provide nearly 45 percent of the employment in the community (Department of Community and Economic Development [DCED], 2002). During the summer, tourism is a major contributor to the local economy, providing approximately \$130 million in income and nearly 2,000 jobs (DCED, 2002).

A rough estimate of the total economic contribution of helicopter landing tours suggests that these tours constitute a considerable proportion of the local tourism economy. Almost

3 Affected Environment

89,000 people participated in helicopter tours in 2001 (Table 1-1). Costs for the tours range from approximately \$150 per person to \$300 per person, which results in gross revenues in the neighborhood of \$13 million to \$26 million per year, or about \$85,000 to \$165,000 per day from May 1 through September 30. Much of this revenue is paid to the cruise lines (approximately \$70 per participant, or \$6 million), some is paid to the Forest Service (approximately \$300,000 in the 2001 operating season), and other portions are dispersed to vendors outside the Juneau area. Nonetheless, the revenue staying in Juneau to pay wages and salaries, and to purchase supplies, likely is substantial. Annually, approximately 200 individuals are hired by helicopter companies and subcontractors for work directly related to the commercial icefield landing tours.

Results of the McDowell Group survey indicate residents of Juneau understand the importance of tourism to their economy. When asked: "Overall, how important do you feel the economic benefits of tourism are to Juneau?", 49 percent of respondents said "very important," 41 percent said "important," 7 percent said "not very important," 1 percent said "not at all important," and 2 percent were not sure (McDowell Group, 1998).

Although residents generally understand the importance of tourism to their economy, they do not necessarily participate in the same activities that tourists do. One survey of helicopter tour participants in 1999 indicated that 99 percent of the participants were cruise ship passengers, and none were Juneau residents (McDowell Group, 1999).

As noted in Chapter 1 (see *Mitigation Recommendations and Mediation Efforts* and Table 1-2), the disturbance to residents by the noise associated with helicopter flightseeing tours to the Juneau Icefield has been well documented. Many CBJ residents have expressed growing frustration with the amount and duration of helicopter noise in the community. In public meetings and written comments, individuals have objected to the noise, observing that noise has social impacts on the community; that noise hinders learning and interferes with sleep, work, convalescence, and communication; that noise is extremely annoying; and that noise destroys family time. Other residents seem less troubled by helicopter noise and have expressed the opinion that such sounds are to be expected in an urban environment like Juneau. These differences of opinion continue to complicate efforts to find compromise solutions to the problem of helicopter noise.

Recreation Areas and Recreation Use

Recreation areas and recreation uses are an important component of tourism in the Juneau area. Existing recreation areas are managed by the federal, state, and local governments for a variety of uses, particularly including icefield visits, hiking, hunting, and boating. Recreationists include both residents and tourists, including tourists who participate in the helicopter tours to the icefield. The following sections present the areas and uses potentially affected by the noise associated with helicopter overflights under one or more of the alternatives.

Areas Managed by the Forest Service

Mendenhall Glacier Recreation Area

The MGRA is a regional, national, and international attraction. It contains 5,815 acres and includes parts of McGinnis Mountain, the terminus of the Mendenhall Glacier, Bullard Mountain, Mendenhall Lake, Mendenhall River, and uplands bordering the lake and Mendenhall River areas.

The MGRA is located next to the Mendenhall Valley, one of the most densely populated areas in the CBJ. Elevations through much of the recreation area are less than 100 feet above sea level. On either side of the recreation area, mountains rise abruptly to more than 4,000 feet. From its source 12 miles north in the Juneau Icefield, the Mendenhall Glacier flows between Bullard Mountain and McGinnis Mountain to Mendenhall Lake.

The glacier face is approximately 0.5 mile wide near Nugget Falls and stretches to almost 2 miles wide higher up the valley. The Mendenhall Glacier Visitor Center is located less than one mile from the face of the glacier.

MGRA is a popular destination for people pursuing many recreational activities such as hiking, photography, bicycling, off-road vehicle (ORV) use, sightseeing, camping, picnicking, boating, hunting, fishing, and wildlife viewing.

The following facilities meet public needs in the recreation area:

- Mendenhall Campground is located along the southwest corner of the recreation area; it has 69 overnight units, including 17 RV/trailer units and 7 backpacker units.
- Skater's Cabin consists of a day-use cabin, two vault toilets, and three picnic sites on the western shoreline of Mendenhall Lake.
- The Mendenhall Glacier Visitor Center is on the eastern shoreline of Mendenhall Lake. It received 273,488 visitors in 1999 (Forest Service, 1999).
- The Dredge Lakes trails are used for non-motorized recreation.

Forest Service Trails

Approximately 25 miles of trails are located within the MGRA, and many more trail ends are near the toe of some glaciers, where there are existing and proposed landing sites. Table 3-1 summarizes the estimated annual use on area trails, which are shown on Figure 1-2.

Eagle Beach Recreation Area

Eagle Beach Recreation Area receives approximately 5,000 visitors annually. Most of this use occurs in the summer months. Facilities include a picnic shelter, barbecue pit, fire pits on the beach, and two vault toilets. Some boating also occurs in this area, which is accessible by a limited-maintenance road. The location of Eagle Beach Recreation Area is shown on Figure 1-2. Eagle Beach is near many of the proposed flight routes to Eagle Glacier and the area north of the 1995 EIS study area.

Table 3-1. Forest Service Trails—Estimated Number of Users Annually¹

Name	1994	1995	1996	1997	1998	1999	2000
Montana Creek (past first 2 miles of old road bed)	1,500	1,600	1,700	1,750	1,850	2,050	2,100
Spaulding Meadows	1,240	1,250	1,260	1,270	1,280	1,290	1,300
Auke Nu Trail	3,400	3,450	3,500	3,550	3,600	3,650	3,700
Herbert Glacier Trail	2,200	2,300	2,450	2,550	2,700	2,950	3,000
Amalga Trail (Eagle Glacier)	1,050	1,200	1,250	1,500	1,800	2,000	2,100
Windfall Trail	2,550	2,650	2,800	2,950	3,100		4,500
Peterson Lake	1,200	1,200	1,250	1,500	1,150	1,300	1,300
Point Bishop	600	610	620	630	640	650	660
East Glacier Trail	7,850	8,200	8,600	9,050	9,500	10,000	11,000
West Glacier Trail	7,160	7,180	7,200	7,220	7,240	7,260	7,280
Nugget Creek Trail	905	925	940	955	970	985	1,000
TOTAL	29,655	30,565	31,570	32,925	33,830	36,635	37,940
% change from previous year	NA	3	3	4	3	8	4

¹ The Forest Service has no quantifiable data on trail use. These numbers are for the entire calendar year.

Estimates are based on anecdotal observations.

NA – Data are not available.

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Forest Service Cabins

The eight Forest Service cabins in the Juneau area are very popular with local residents. Each year, the reservation lists fill up quickly, and popularity continues to rise (Table 3-2). Users are varied in their pursuits, some hiking, some hunting, some interested in photography. Several of these cabins are accessible only by boat or plane. Total cabin use is estimated to have reached more than 4,600 visitors in 1999, reflecting an overall average annual increase of 6 percent since 1994. Many of these cabins are adjacent to proposed flight routes for commercial helicopter landing tours. Figure 1-2 shows the proposed flight routes and landing sites in relation to Forest Service cabins.

Berners Bay Area

Although not a designated “recreation area,” the Berners Bay area is a popular weekend destination for Juneau residents for wildlife viewing, exploration, hunting, and fishing. Access is typically by kayak, motorboat, or floatplane. Most activities are water based and some overnight camping occurs along the shoreline. The NFS land here is congressionally designated as LUD II. (Refer to Appendix B for LUD II management prescriptions.) Berners Bay is adjacent to many of the proposed flight routes for commercial helicopter landing tours.

Table 3-2. Forest Service Cabins – Estimated Number of Users Annually¹

Area Name	1994	1995	1996	1997	1998 ²	1999 ³	2000 ³	2001 ^{3,4}
Eagle Glacier	550	600	650	750	600	572	475	398
Windfall Lake ⁵	---	---	---	---	150	756	712	539
Berners Bay	700	700	700	650	650	481	522	258
John Muir	750	900	900	1,050	900	865	693	389
Peterson Lake	600	650	650	750	600	502	449	263
Dan Moller	650	800	850	1,000	700	512	559	430
Taku Glacier ⁶	---	---	---	220	170	30	NA	NA
West Turner Lake	310	310	470	390	570	110	NA	NA
TOTAL	3,560	3,960	4,220	4,810	4,340	3,828	3,410	2,277
% change from previous year	NA	+11	+7	+14	-10	-12	-11	-33

¹ 1994 to 1998 cabin use numbers are from cabin reservation system data. These numbers are for the entire calendar year and are estimates only.

² The decline in reported cabin use during 1998 is most likely due to a price increase, combined with the first year on the new National Recreation Reservation Service (NRRS).

³ 1999 to 2001 cabin use numbers are from NRRS annual reports; day use visitors are not included in these numbers.

⁴ The decline in reported cabin use during 2001 is most likely a result of warmer temperatures and a decrease in snowfall.

⁵ Windfall Lake Cabin was built in 1998.

⁶ Taku Glacier Cabin was built in 1997.

NA – Data are not available.

Gilkey River

The 1997 Forest Plan recommended to Congress a “Wild & Scenic River” designation for 9 miles of the Gilkey River, as provided for under the 1968 Wild and Scenic Rivers Act. Unless otherwise changed with a Forest Plan revision or until otherwise acted upon by Congress, the Forest Service will continue to manage for the protection of the Gilkey Rivers’ remarkable geologic and scenic values. The Gilkey River is a popular route for both fixed-wing and helicopter flightseeing and landing tours. Hunters, anglers, and other recreation enthusiasts access the river by boat and plane.

Areas Managed by Alaska Department of Natural Resources, Division of Parks and Recreation

Point Bridget State Park trail system use has increased by 50 to 75 percent over the past 5 years to an estimated annual use of 3,000 people, including approximately 1,000 users each at Blue Mussel and the Cowee Creek cabins. Sheep Creek trail receives an estimated 500 users annually. Perseverance trail system (including Granite Creek and Mt. Juneau) use has increased 25 to 30 percent in the past 5 years to an estimated 35,000 users annually. An estimated 125,000 users visit the Mt. Roberts upper terminal area annually, and approximately 50 percent use some part of the trail system. These areas are shown on Figure 1-2. The State Park cabins shown in Figure 1-2 are adjacent to the proposed flight routes for commercial helicopter landing tours north of the 1995 EIS study area.

Areas Managed by the City and Borough of Juneau

Trails

CBJ conducted a trail survey in 1995 on the Boy Scout Camp, Lemon Creek, Salmon Creek, and Thunder Mountain trails. Based on the survey, estimated use ranged from 150 to 600 users annually on the four trails. These are conservative estimates, and their accuracy is unknown; however, no other figures for CBJ trail use are available at this time (CBJ Parks and Recreation, 2000). These trails, shown on Figure 1-2, are adjacent to many of the proposed flight routes for helicopter landing tours.

Echo Cove Boat Ramp

The location of Echo Cove Boat Ramp is shown on Figure 1-2. This area, just south of Berners Bay, is used primarily by boaters and kayakers seeking water-based recreation. Most of the use occurs in the summer season. This is a primary access point for boaters going to Berners Bay, especially kayaking enthusiasts. On the weekends, approximately 40 to 50 cars, trucks, and trailers use the ramp. Trends show that more kayaking activity is occurring at this launch site. Use has increased approximately 15 percent in the past 5 years (CBJ Parks and Recreation, 2000). The Echo Cove Boat Ramp is under a proposed flight route for commercial helicopter landing tours north of the 1995 EIS study area.

Amalga Harbor Boat Ramp

The location of Amalga Harbor Boat Ramp is shown on Figure 1-2. Most use occurs in the summer season. On weekends, approximately 75 to 85 cars, trucks, and trailers use the ramp. The area is used primarily by powerboaters and some kayakers. Use is exceeding capacity and has increased by approximately 50 percent over the past 5 years (CBJ Parks and Recreation, 2000). This area is near some of the proposed flight routes for commercial helicopter landing tours.

Other Recreation User Groups

As noted above, area recreation includes both land-based recreation and water-based activities, such as pleasure boating, sport fishing, and kayaking. It also includes the helicopter flightseeing tours. The following sections describe recreational activities that may be affected by this decision.

Juneau Icefield Backcountry Users

The Juneau Alpine Club consists of 25 to 30 active outdoor enthusiasts who trek and adventure in the backcountry of the Juneau Icefield. Small groups of five to ten individuals participate in Juneau Icefield trips three to four times a year. In addition, during the winter, spring, and summer, the club organizes weekly group activities on the nearby ridges and peaks.

A handful of other individuals, not associated with the Juneau Alpine Club, participate in ice and snow travel/trekking activities on the Juneau Icefield, including trekking from Juneau to Atlin. Small groups of icefield trekkers have conducted similar activities in the past, and the activity is becoming more popular.

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Backcountry use on and adjacent to the Juneau Icefield also includes other uses that do not require permits, which entail nontour-related flights (strictly charter flights) to the icefield and adjacent sites. These activities include non-outfitter-guided icefield weddings, heli-skiing, heli-hiking, photo shoots for commercial ventures, wildlife viewing, heli-fishing, and similar activities.

TEMSCO Helicopters, Inc.

TEMSCO is currently permitted to operate on the Mendenhall, Herbert, Taku, Norris, Lemon, and Gilkey glaciers, as well as various locations in the backcountry zone, and is authorized a maximum of 8,800 landings. TEMSCO also has two assigned sites on Mendenhall Glacier for a temporary, portable shelter with a port-a-potty. Most of TEMSCO's landing tours and associated activities occur on the Mendenhall Glacier.

In 1999 and 2000, TEMSCO, in partnership with Alaska Icefield Expeditions, offered the Icefield Flightseeing and Mushing Tour which included one landing on the Mendenhall/Herbert glacier saddle. Passengers departed the aircraft for a 1-hour, guided, dogsled mushing experience. The tour consisted of one to three helicopters flying together with approximately 1 hour between tours. Helicopters use a west departure to Auke Mountain to the Mendenhall Glacier or up the west side of the Mendenhall Valley over the Back Loop Road. The Heintzleman Ridge and Lemon Creek routes may be used when and if there are no opposing traffic conflicts.

TEMSCO currently offers icefield flightseeing tours combined with one or two glacier landings, as well as guided hiking and dogsled mushing tours. Glacier guides commute daily to the assigned sites to guide tour passengers dropped off for their glacier activity.

TEMSCO also offers a Pilot's Choice Tour that, weather permitting, flies from TEMSCO's heliport west to the ferry terminal then north to the icefield. After landing on two different glaciers, helicopters return along the same route or return through the Lemon Creek area or Taku Inlet, and up Gastineau Channel (see Figure 1-2). The Pilot's Choice Tour consists of one or two helicopters flying together with approximately 1.5 hours between tours for up to eight tours per day. Some of these tours also depart to the east, flying along Douglas Island, and following the same routes as Era up Sheep Creek or around Point Bishop. The return route for TEMSCO is via Lemon Creek Glacier or from the west.

TEMSCO also offers the Mendenhall Glacier Tour, which flies from its heliport to the Mendenhall Glacier. This tour generally consists of five helicopters in a group flying every 25 minutes. The preferred route, weather permitting, is up Heintzleman Ridge and back. Other flight routes used during low cloud ceiling conditions are either up the west side of the Mendenhall Valley, over the Back Loop Road, or over Auke Bay and up the eastern edge of Auke Mountain to Mendenhall Glacier. Of these two latter routes, the route up the eastern edge of Auke Mountain is TEMSCO's preferred route because they believe it creates less noise and visual impact to the residents of Mendenhall Valley. If weather permits, this route is flown first, with the Mendenhall Valley route as the last choice.

TEMSCO's Guide's Choice Extended Glacier Tour includes one glacier landing on the Juneau Icefield. Passengers are outfitted with hiking equipment and spend 2 hours exploring glacial features. This tour consists of one or two helicopters flying together, with approximately 2 hours between each tour. Helicopters use a west departure to Auke Mountain to the Mendenhall Glacier, or up the west side of the Mendenhall Valley, over the Back Loop Road. The Heintzleman Ridge and Lemon Creek routes may be used when and if there are no opposing traffic conflicts. All tour flights generally follow routes

identified in the LOA, as discussed in Chapter 1 under the heading Laws, Statutes, and Ordinances.

Coastal Helicopters, Inc.

Coastal is currently permitted to operate on the Gilkey, Herbert, Lemon Creek, Norris, and Taku glaciers, as well as various locations in the backcountry zone. Coastal is authorized a maximum of 1,217 landings. Most of Coastal's landing tours and associated activities occur on Herbert Glacier, and involve walking on and experiencing the glacier environment, photography, and weddings.

Coastal's standard tour is the Icefield Excursion Tour, usually consisting of a single helicopter, but occasionally it flies a group of two helicopters. The tour is about 1 hour long, with one-fourth of the time spent on a glacier. Coastal also offers an Adventure Tour, which departs the airport to the west or north toward Gilkey Glacier and backcountry areas. This tour is approximately 1.5 hours long with one glacier landing. All tour flights generally follow routes as identified in the LOA with the FAA.

Era Helicopters, Inc.

Era is currently permitted to operate on the Norris, Taku, Lemon Creek, and Gilkey glaciers, as well as various locations in the backcountry zone. Era is authorized a maximum of 7,235 landings. Most of Era's landing tours and associated activities occur on the Norris Glacier.

Era has one site assigned on Norris Glacier where it is authorized to occupy up to 3 acres and place temporary facilities for dogsled mushing activities. These facilities consist of eight to ten temporary housing facilities for the guides, as well as approximately 180 sled dog houses and other structures designed to blend in with the glacier environment. The dogs and guides live at the assigned site for the duration of the tourist season.

Many of Era's tours leave its heliport on the west side of Gastineau Channel, fly up Sheep Creek to Norris Glacier, and return via Salmon Creek. Flights generally follow routes identified in the LOA with the FAA. Era typically leaves every 30 minutes with two tours consisting of four helicopters in each tour. Other tours, predominantly the dogsled tours, leave in groups of three from a heliport site at the Juneau International Airport near the Wings of Alaska cargo area. All tour flights generally follow routes identified in the LOA with the FAA.

NorthStar Trekking, LLC

NorthStar is currently permitted to operate on the Mendenhall, Lemon Creek, Taku, Norris, and Gilkey glaciers, as well as various locations in the backcountry zone. NorthStar is authorized a maximum of 1,787 landings³. Most of NorthStar's landing tours and associated activities occur on the Mendenhall Glacier, but the other sites are regularly used when weather, snow, and ice conditions allow.

NorthStar offers four different flightseeing and glacier landing tour packages. The Glacier Discovery Tour involves one glacier landing and is approximately 2 hours long. The Glacier Trek Tour involves one glacier landing combined with a glacier trek that is 2, 4, or 6 hours long. NorthStar sets up a floorless expedition tent on the glacier surface for gearing up clients with glacier trekking gear. This tent is set up and taken down on a daily basis. The Icefield Explorer Tour involves two glacier landings and is

³ NorthStar's actual landings in 2001 equaled 1,805. The extra landings were redistributed by the Forest Service when other companies did not use their full allotment.

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approximately 2.5 hours long. The Overnight Glacier Adventure trek includes time to be outfitted with glacier gear and a flight to and from the glacier trek beginning and ending locations. The multi-day trekking activities take place primarily on the west side of the Mendenhall Glacier or on the Nugget Glacier, with a single camp and loop routes in the vicinity of the camp. Other multi-day trekking tours are conducted between the Lemon Glacier and lower South Branch of the Mendenhall Glacier. Participants set up and occupy temporary camps that they move with them as part of the trekking experience.

The primary flight routes originate from the Juneau International Airport. Arrivals and departures from the Juneau International Airport are conducted under an LOA with the FAA, but may deviate from this at the direction of the air traffic controller because of weather or conflicting traffic. Likewise, routes to, from, and over the glaciers/icefield vary due to weather and traffic conditions.

Flights to the Mendenhall Glacier, west end of the Juneau Icefield, and the Gilkey, Battle, and Thiel glaciers generally depart to the west on a Mendenhall departure, or a west departure, according to the LOA with the FAA. Mendenhall departures fly over the green belt area of the valley to the Rifle Range and either onto the Mendenhall Glacier or up Montana Creek to reach the Herbert Glacier and icefield. West departures fly over Mendenhall Peninsula and Auke Bay to the ferry terminal, then turn north along Spaulding Meadows for either Mendenhall Glacier or Montana Creek, proceeding to the Herbert Glacier and the icefield. Occasionally routes to the west continue further up the coastal area, as far as Berners Bay, to access or return from the west end due to weather.

Flights to the Lemon, Norris, and Taku glaciers generally depart to the east, climb up the Blackerby Ridge side of Lemon Creek, and proceed to the sites at the east end of the Juneau Icefield. When weather conditions do not allow use of this route, the flight path proceeds east along the Douglas side of Gastineau Channel and either through Sheep Creek or around Point Bishop and up Taku Inlet. When weather allows, flights to the east end may depart or return via the Mendenhall Glacier or Spaulding Meadows route. Likewise, the west end trips may use the east route for either the departure or arrival.

Dogsled Mushing Tours on the Juneau Icefield

Table 3-3 shows the history and development of companies, under special use permit by the Forest Service, conducting commercial outfitter-guided dogsled mushing tours on the Juneau Icefield. The landings are included in the total annual authorizations for the permitted commercial helicopter landing tours on the Juneau Icefield. More than 8,000 cruise ship passengers chose to participate in this activity during the 1999 season, and more than 9,000 participated in 2000 and in 2001. As shown in Table 3-3, dogsled tour participation grew rapidly from its inception in 1997, and is beginning to settle into a more normal growth rate.

Table 3-3. Dogsled Mushing Tours on the Juneau Icefield, 1997-2000

	1997	1998	1999	2000	2001
Landings	216	566	1,567	1,824	1,792
% change from previous year	NA	+162	+177	+16	-2
Participants	1,113	3,030	8,267	9,787	9,555
% change from previous year	NA	+172	+175	+18	-2

NA – Not applicable.
Source: Forest Service files.

Taku Lodge—Wings of Alaska

Annually, approximately 25,000 people participate in fixed-wing flightseeing tours with Wings of Alaska in the Taku Inlet area. Approximately 50 percent of these individuals elect the tour that includes a visit to the Taku Lodge and use of its amenities.

Alaska Coastal Airlines, LLC.

Alaska Coastal Airlines, under permit to the Forest Service in 1999 and 2000, was authorized to conduct outfitter-guided flightseeing tours that land on Norris Glacier Lake, Antler Glacier Lake, West Fork Lake, as well as other destinations that are not on the JRD. The flights departed from the Juneau Airport float pond. Clients experience a flightseeing tour with a fixed-wing aircraft landing on the destination body of water. Clients walk onto and explore the lakeshore or glacier terminus environment. On Norris Glacier Lake, 50 fixed-wing landings were reported in 1999, and 15 were reported in 2000. No use has been reported at Antler Glacier Lake or West Fork Lake for the past two years. Alaska Coastal Airlines did not have a permit in 2001 and currently does not have a permit to operate on the JRD.

Alaska Fly 'N Fish Charters, Inc.

Alaska Fly 'N Fish Charters, under permit to the Forest Service, conducts outfitter-guided fixed-wing flightseeing tours that depart from the Juneau Airport float pond and have destinations on the JRD and Admiralty National Monument, which are outside of the project boundary. The flights, however, do originate from within the project area. A total of 350 service days (approximately 100 departures) was authorized in 2000, although only one trip or no trip has occurred each year at each site on the JRD.

Bear Creek Outfitters, Inc.

Bear Creek Outfitters, under permit to the Forest Service, conducts outfitter-guided fixed-wing fishing tours that depart from the Juneau Airport and the airport float pond. Bear Creek Outfitters has destinations on the JRD and Admiralty National Monument, which are outside of the project boundary; however, the flights originate from within the project area. Bear Creek Outfitters provides outfitter-guided fishing opportunities for approximately 1,000 clients annually.

Gastineau Guides, Inc.

Gastineau Guides, under permit to the Forest Service, conducts outfitter-guided hiking on the trails in the MGRA and on Herbert Glacier Trail. Reported use has averaged approximately 4,000 clients for the past three years, with authorized use at nearly twice that. The reported use figures are included in the total use estimates in Table 3-1.

Out of Bounds, Inc.

Out of Bounds, under permit to the Forest Service, conducts outfitter-guided heli-skiing on the Tongass National Forest. Their permit authorizes outfitter-guided heli-skiing in the following areas: Antler Glacier and the Antler River Valley; Bucher Glacier; areas in the 1995 EIS Juneau Icefield study area (except for Eagle Glacier, Mendenhall Glacier, Death Valley, and the lower half of Taku Glacier); and areas on the Chilkat Mountain Range south of Endicott River Wilderness. Operations occur primarily from January through April, and for the 5 years from 1996 to 2000, Out of Bounds averaged 232 clients annually, with an associated 50 round-trip flights from the TEMSCO and Coastal helibases near the Juneau International Airport. Out of Bounds currently does not have a permit for 2002 operations on the JRD.

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Other Facilities

The following uses are generally considered educational or general purpose rather than recreational; however, they are included here for completeness and because any impacts to these users would be similar to impacts on recreationists.

Juneau Icefield Research Program

Approximately 50 students participate annually in the JIRP. The students hike/trek to the research camps (shown in Figure 1-2). Activities include icefield research work and study at the camps, seismic data recording, weather monitoring, and study of the Juneau Icefield dynamics and characteristics. Much of the activity is based out of transient, remote field camps that are moved periodically.

Echo Ranch Bible Camp

Located just south of Berners Bay, Echo Ranch Bible Camp is used primarily from May through September each year. The use has been stable for the past 5 years and reaches approximately 3,600 persons annually. This number represents Bible camp students, staff, and campers in the area, many of whom engage in outdoor adventure activities including kayaking, hiking, camping, and horseback riding. Much of the kayaking activity based at the camp has Berners Bay as a destination. Echo Ranch Bible Camp is located under a proposed flight route for commercial helicopter landing tours on the Juneau Icefield.

Privately Owned Facilities in the Taku Inlet Area

Several privately owned facilities are located on land along the shoreline of Taku Inlet and Taku River. These are under or adjacent to the flight routes of the helicopter landing tours.

Wildlife

Wildlife Species in the Project Area

This section is divided into three parts: management indicator species; threatened, endangered, and sensitive species; and other species of concern.

Management Indicator Species

Wildlife species depend on a variety of habitats to meet their needs. The response of management indicator species (MIS) to land management activities can be used to predict the likely response of other species with similar habitat requirements or life histories. Through the MIS concept, the total number of species that occur within a project area can be represented by a smaller set of species that collectively represent the complex of habitats, species, and associated management concerns. All 13 of the MIS identified in the Forest Plan (Forest Service, 1997) occur within the project area. The project is not likely to affect the red squirrel (*Tamiasciurus hudsonicus*), marten (*Martes americana*), river otter (*Lutra canadensis*), Sitka black-tailed deer (*Odocoileus hemionus sitkensis*), Vancouver Canada goose (*Branta canadensis fulva*), red-breasted sapsucker (*Sphyrapicus ruber*), hairy woodpecker (*Picoides villosus*), or brown creeper (*Certhia americana*) because flight routes that occur near their habitat generally are greater than 1,500 feet above ground level, and their habitat does not occur near landing sites. Individuals of these species may be disturbed in some cases, but effects on populations would be negligible.

Black Bears

Black bears (*Ursus americanus*) are present throughout the mainland and on the islands south of Frederick Sound (MacDonald and Cook, 1999). They use areas from sea level to alpine areas throughout the project area, but rarely occur on the icefield itself except

when traveling to other, more hospitable habitat areas. Estuarine, riparian, and forested coastal habitats receive the highest use by black bears and appear to have the highest habitat values (Forest Service, 1997). Black bears can adapt to changes in their environment caused by humans. Black bears occur near proposed flight routes in the Lace River, Berners Bay, Antler River, Gilkey Glacier, Thiel Glacier, Battle Glacier, Cowee Creek, Eagle Glacier and River, Herbert Glacier and River, Mendenhall Glacier, Heintzleman Ridge, Blackerby Ridge, Salmon Creek, lower Norris Glacier, and lower Taku Glacier and River areas.

Brown Bears

Brown bears (*Ursus arctos*) are present on the mainland and on the islands north of Frederick Sound (MacDonald and Cook, 1999). They use areas from sea level to alpine areas throughout the project area, but rarely occur on the icefield itself except when traveling to other, more hospitable habitat areas. The late-summer season is the most critical or limiting period for brown bears while they feed voraciously in preparation for winter (Forest Service, 1997). During this season, many brown bears concentrate along low-elevation valley bottoms and salmon streams. Brown bears occur near proposed flight routes in the Lace River, Berners Bay, Antler River, Gilkey Glacier, Thiel Glacier, Battle Glacier, Cowee Creek, Eagle Glacier and River, Herbert Glacier and River, lower Norris Glacier, and lower Taku Glacier and River areas.

Mountain Goats

Mountain goats (*Oreamnos americanus*) are the species likely to be most affected by the proposed project because of the proximity of their habitat to flight routes and landing sites. Historically, mountain goats in Southeast Alaska were present only on the mainland, but have more recently been transplanted to many of the islands (MacDonald and Cook, 1999). Mountain goats represent species using cliffs, alpine and subalpine habitats, and old-growth forest habitats (Forest Service, 1997), and they occur in these habitats throughout the project area (Figure 2-10). A mountain goat habitat capability model (Suring et al., 1988) developed by the Forest Service and the ADF&G for the Tongass Land Management Plan Revision was used to identify this habitat. Maps portraying mountain goat habitat have been updated since the 1995 EIS to include the 1,500-foot buffer recommended in the Forest Plan and areas where goats have been observed consistently. The model has been verified with aerial observations made in the project area.

The quantity and quality of winter habitat is the most limiting factor for mountain goats in Southeast Alaska. Old-growth trees with large, dense crowns have the highest value because they intercept the most snow and provide understory forage plants. Mountain goats may also be sensitive to low-level aircraft flights over summer alpine habitats (Foster and Rahs, 1983; Côté, 1996; Wilson and Shackleton, 2001). Mountain goats mate in November and December and, usually, a single kid is born in late May or early June after a gestation period of approximately 180 days. Kidding habitat occurs throughout the project area in denser subalpine vegetation, usually between 1,000 and 2,000 feet in elevation. Kids usually remain with their mothers until the next breeding season. Mountain goats may live 14 to 15 years, though most live fewer than 12 years.

Standards and guidelines in the Forest Plan require providing for the long-term productivity of mountain goat habitat and viability of mountain goat populations. Where feasible, facilities, camps, and other developments should be located 1 mile or more from important wintering and kidding habitat. If the 1-mile or more distance cannot be achieved, possible adverse impacts are mitigated by seasonally restricting or regulating human use and employing other site-specific mitigation measures. The standards and guidelines also indicate that Forest Service-permitted or approved aircraft flights (fixed-wing and helicopter) should maintain a 1,500-foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. Where feasible,

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flight paths should avoid known mountain goat kidding areas from May 15 through June 15.

Several studies found that mountain goat home ranges are relatively small. A study of 28 radio-collared mountain goats in Southeast Alaska showed that year-round home ranges varied from 3.9 to 7.7 square miles (10 to 20 square kilometers) (Fox et al., 1989). Seasonal range attachment to sites is high. Preferred sites are used year after year. Attachment to sites used in summer is higher than winter-use sites (Fox et al., 1989). Mountain goats prefer steep, rugged terrain (Brandborg, 1955; Rideout and Hoffman, 1975) and this preference is generally explained as predator avoidance (Fox and Streveler, 1986; Rideout and Hoffman, 1975).

Several studies found that mountain goats spent 60 percent of daylight hours within or at the edge of escape terrain in summer (Fox, 1983; Schoen and Kirchhoff, 1982; Smith, 1985). Mountain goats near Juneau used rock outcrops, alpine tundra, subalpine forest, and shrub land habitats predominantly during summer (Schoen and Kirchhoff, 1982). Assuming nighttime bedding in escape terrain, the longer period of daylight in summer means that mountain goats spend substantially more time outside escape terrain than in winter (Fox et al., 1989). Smith (1985) reported that 95 percent of all relocations of radio-collared mountain goats in Southeast Alaska were within 1,300 feet of cliffs that could be used as escape terrain.

A habitat capability model was developed by the Forest Service and ADF&G in 1988 for the Tongass Land Management Plan Revision. The model uses topographic features (steep escape terrain) and habitat features (old-growth forests on southerly aspects within 1,300 feet of escape terrain) from Forest Service Geographic Information System (GIS) databases to estimate the capability of habitats to support mountain goat populations. Figure 2-8 shows habitats in the project area capable of supporting mountain goats and areas where mountain goats have been consistently observed. Goats have been observed in most of the areas predicted by the habitat capability model.

Goat populations have apparently been stable or increasing in the project area over the past 30 years. Goat populations near Juneau were probably depressed in the early part of the century because of increased human habitation related to mining activity (Barten, 2000). Hunting occurred throughout the project area until 1985 when the area from Taku Glacier to Eagle Glacier was closed because of low numbers of goats. Goats in the remainder of the project area have always been subject to harvest. The area between Point Salisbury and Taku Glacier was reopened in 1999 for an archery-only hunt.

An outbreak of contagious ecthyma, or orf, was detected near Mendenhall Glacier and the Kensington mine in 1990 (McCarthy, 1991; Zarnke, 2000). Contagious ecthyma is a viral disease, occurring most commonly in Dall sheep and mountain goats in Alaska. The virus is generally non-lethal to healthy animals, lasting a few weeks; however, scabby lesions can temporarily form on eyes and ears to the degree that these senses become useless. Although this condition is temporary, these individuals are more susceptible to predation and falling accidents while ill. It is unknown to what extent contagious ecthyma influences population dynamics. There was no evidence of this disease in the project area since the early 1990s until a young goat was reported with the disease near Sheep Creek in fall 2001. The goat was collected by ADF&G after it had died in October 2001 (Barten, 2001).

Gray Wolves

In Southeast Alaska, gray (*Alexander Archipelago*) wolves (*Canis lupus ligoni*) inhabit the mainland and the islands south of Frederick Sound (MacDonald and Cook, 1999). They occur throughout the project area from shoreline to alpine areas, but generally avoid areas used by humans. Wolves observed on the icefield are traveling to other, more hospitable habitat areas. Suitable habitats for wolves equate to areas capable of

supporting an adequate prey base of ungulates, beaver, and salmon. Wolf densities are generally lower on the mainland and higher on islands in the southern half of the Tongass National Forest where the prey densities are higher. Due to social interactions, wolf densities do not exceed certain levels even when prey abundance is high. Wolves have large home ranges (about 100 square miles [260 square kilometers] per pack), use a wide variety of habitats, and are very mobile. They do not have specific vegetation corridor requirements, as they travel and disperse through a variety of terrain, vegetative conditions, and among islands separated by relatively narrow bodies of water (e.g., hundreds of yards). Wolves occur near proposed flight routes in the Lace River, Berners Bay, Antler River, Gilkey River and Glacier, Thiel Glacier, Battle Glacier, Cowee Creek, Eagle Glacier and River, Herbert Glacier and River, Mendenhall Glacier, Heintzleman Ridge, Blackerby Ridge, Salmon Creek, lower Norris Glacier, and lower Taku Glacier and River areas.

Bald Eagles

Bald eagles (*Haliaeetus leucocephalus*) occur throughout Southeast Alaska, where their continent-wide population reaches its highest density (Forest Service, 1997). Concentrations occur in Berners Bay in late April through mid-May to feed on the abundant schooling and spawning eulachon. Their nesting habitat is primarily old-growth trees along the coast and within riparian areas (Figure 2-9). The USFWS and Forest Service maintain an interagency agreement for bald eagle habitat management in the Alaska Region, which includes standards and guidelines for regulating human disturbance within identified bald eagle use areas on NFS lands. All identified eagle nest trees are surrounded by a minimum 330-foot radius protective habitat management zone. Repeated aircraft flights are restricted within one-quarter mile of nest trees when active. All nest trees are considered active March 1 to May 31, and those nest trees containing eggs or young are considered active June 1 through August 31, annually. USFWS surveys have located 308 nest trees within the project area (Figure 2-9).

Threatened, Endangered, and Sensitive Species

Threatened and endangered species (TES) are those plant and animal species formally listed by USFWS or NMFS, under authority of the ESA. An endangered species is defined as a species in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Sensitive species are those plant and animal species identified by the Regional Forester for which population viability is a concern on NFS lands within the Alaska Region.

Of the six threatened or endangered species that occur in the Tongass National Forest, only the humpback whale (*Megaptera novaeangliae*) and Steller sea lion (*Eumetopias jubata*) occur in or near the project area. Of the eight sensitive fish and wildlife species that occur in the Tongass National Forest, only the trumpeter swan (*Cygnus buccinator*) and Queen Charlotte goshawk (*Accipiter gentilis laingi*) occur in the project area. The project is not likely to affect the Queen Charlotte goshawk because its habitat generally does not occur near flight routes or landing sites.

Humpback Whales

Humpback whales occur in marine waters throughout Southeast Alaska (MacDonald and Cook, 1999), including Taku Inlet, Stephens Passage, Gastineau Channel, Fritz Cove, Favorite Channel, and Berners Bay in or near the project area. Humpback whales feed in southeastern Alaska waters from about May through December, though some remain year-round. Whales and other marine mammals concentrate in Berners Bay in early May to feed on spawning eulachon. Because the humpback inhabits shallow coastal areas, it is increasingly exposed to human activity. Consequently, these whales may be more susceptible to confrontational disturbance, displacement, and loss of habitat from environmental degradation than some other whale species. Standards and guidelines in

3 Affected Environment

the Forest Plan require that the Forest Service provide for the protection and maintenance of whale habitats and ensure that Forest Service-permitted or approved activities are conducted in a manner consistent with MMPA, ESA, and NMFS regulations for approaching whales. Taking of whales is prohibited; taking includes harassing or pursuing or attempting any such activity.

Steller Sea Lions

Steller (northern) sea lions occur in marine waters throughout Southeast Alaska (MacDonald and Cook, 1999), including Taku Inlet, Stephens Passage, Gastineau Channel, Fritz Cove, Favorite Channel, and Berners Bay in or near the project area. Steller sea lions gather on well-defined, traditionally used rookeries to pup and breed (Caulkins, 1994). Males defend individual territories from approximately mid-May through mid-July. Females give birth to a single pup anytime from mid-May through July. As marine carnivores, Steller sea lions eat a wide variety of fish and invertebrates. Feeding occurs from the intertidal zone to the continental shelf, and Steller sea lions are considered top-level consumers. Harassment or displacement of sea lions from preferred habitats by human activities such as boating, recreation, and aircraft is a concern with regard to long-term conservation of the sea lion in Southeast Alaska (Forest Service, 1997).

NMFS designated critical habitat for the Steller sea lion in 1993 (50 CFR Part 226.202) and defines areas considered essential for the continued survival and recovery of this species. Critical habitat provides notice to federal agencies that a listed species depends on these areas for its continued existence and that any federal action that may affect these areas is subject to consultation requirements of Section 7 of ESA. Critical habitat at these sites includes a 3,000-foot distance landward and seaward from the rookery or haulout site. It also includes a 3,000-foot-elevation air zone above these terrestrial and aquatic zones. Benjamin Island is the only designated critical habitat in or near the project area. Forest-wide standards and guidelines direct the Forest Service to protect Steller sea lion habitat and ensure that Forest Service-funded, permitted, or authorized activities are conducted in a manner consistent with the requirements, consultations, or advice received from the appropriate regulatory agencies for MMPA, ESA, and NMFS guidelines for approaching seals and sea lions. Guidelines developed by NMFS for aircraft-based viewing of marine mammals include prohibition of buzzing and hovering, and maintenance of a 1,500-foot altitude buffer. Taking of sea lions is prohibited; taking includes harassing or pursuing or attempting any such activity.

Trumpeter Swans

Trumpeter swans occur throughout Southeast Alaska in ice-free areas during the winter (Forest Service, 1997). They nest and rear young from April through September in the wetlands of the Antler, Lace, and Berners river drainages that flow into Berners Bay on the northern end of the project area (Figure 2-9). Trumpeters typically select a nest site in an undisturbed marsh next to a small lake and are very sensitive to disturbance (Rosenberg and Rothe, 1994). They may have an unsuccessful breeding season if high levels of human activity occur near their nest site. In most areas, special habitat protection measures are intended to ensure continued use and production by swans. Forest-wide standards and guidelines direct the Forest Service to provide for the protection and maintenance of trumpeter swan habitats and avoid disturbance of trumpeter swans, particularly during nesting, brood rearing, and wintering periods, to prevent abandonment of their nests, brood-rearing areas, and winter habitats. As a general guideline, the Forest Plan limits development within 0.5 mile of wetlands used by nesting, brood-rearing, and wintering trumpeter swans.

Other Species of Concern

Moose (*Alces alces*) naturally occur in the major river systems on the mainland in Southeast Alaska and were transplanted to Berners Bay in 1960 (MacDonald and Cook, 1999). Moose habitat in Southeast Alaska is associated primarily with riparian and post-glacial early-successional vegetation types (Forest Service, 1997). In addition to all

drainages in Berners Bay, they occur near the foot of the Taku and Norris glaciers and a few occur in the Cowee/Davies and Eagle/Herbert drainages. Forest-wide standards and guidelines direct the Forest Service to coordinate other resource management activities to maintain or improve habitat conditions for moose.

Harbor seals (*Phoca vitulina*) occur throughout Southeast Alaska in coastal marine waters. During salmon migration, they can be found a considerable distance upstream in freshwater rivers and lakes (MacDonald and Cook, 1999). Concentrations greater than 500 occur in Berners Bay in late April through mid-May, where they feed on the abundant schooling and spawning eulachon. Harbor seals haul out of the water periodically to rest, give birth, and nurse their pups (Kinkhart and Pitcher, 1994). Single pups are born between May and mid-July and normally remain with their mothers for about 1 month. Reefs, sand and gravel beaches, sand and mud bars, and glacial and sea ice are commonly used for hauling sites, including Berners Bay. Also in Berners Bay, seals come ashore during July and August to molt. Seals are susceptible to disturbance by aircraft and boats, and when disturbed, retreat into the water. Repeated disturbance during pupping, nursing, or molting can be socially and energetically detrimental (Jemison, 1999). The MMPA prohibits harassment of all marine mammal species in U.S. waters. Harassment is defined in the MMPA as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering." Guidelines developed by NMFS for aircraft-based viewing of marine mammals include prohibition of buzzing and hovering, and maintenance of a 1,500-foot altitude.

New Areas

The fourth significant issue noted in Chapter 1 is impacts in new areas. The new areas being considered in one or more of the alternatives include Antler Glacier, Antler Glacier Lake, other areas north of Gilkey Glacier to the Haines/Juneau Borough line (see Figure 1-2), Berners Bay, Eagle Glacier, and Death Valley. Berners Bay supports extensive water-based recreation and, currently, there is a cabin at the bay. The other sites are more remote and currently provide wildlife habitat and recreational opportunities away from helicopter landing sites; these have been discussed in previous recreation and wildlife sections.

Roadless Areas

This project encompasses, but is not all inclusive of, five Roadless Areas as identified in the Forest Plan and updated in the Supplemental EIS (SEIS) to the 1997 Tongass Land Management Plan Revision EIS, which is currently in progress. The areas, identified in the Forest Plan and updated in the SEIS, are as follows:

Area	Name	Acres
301	Juneau-Skagway Icefield	1,201,474
302	Taku-Snettisham	685,704
305	Juneau Urban	95,633
310	Douglas Island	27,761
313	Rhine	19,628

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These five Roadless Areas, as shown in Figure 3-1, encompass approximately 2,030,200 acres and are described below. Each individual roadless area description is available in its entirety on the SEIS Web site at www.tongass-seis.net.

Skagway-Juneau Icefield (301)

The area is on the Juneau mainland and is bordered by the Canadian Border to the east; non-NFS Alaskan lands, including the city of Skagway to the north; the CBJ and the Taku-Snettisham Roadless Area (302) to the south; and Lynn Canal and the Juneau Urban Roadless Area (305) to the west. The southern boundary is bounded partially by the southern edge of the Juneau Icefield above the Taku Inlet and the Taku River drainage.

This vast area, more than 1.2 million acres in size, includes three biogeographic provinces (Ice Fields, Lynn Canal, and Northern Coast Range Provinces). The majority of the area is in the Ice Fields Province, which is generally characterized by permanent ice fields, active glaciers, and nunatoks (mountain peaks between glaciers).

The area was allocated to seven different LUDs under the 1997 Forest Plan. These seven LUDs were Remote Recreation (904,769 acres), Semi-Remote Recreation (218,526 acres), LUD II (42,921 acres), Modified Landscape (22,469 acres), Wild River (10,176 acres), Research Natural Area (8,276 acres), and Old-Growth Habitat (3,625 acres).

The natural features of the area, including the extensive icefield, the scenery, and the opportunity to see wildlife and to study the processes that formed this country, may all be considered attractions. The icefield and numerous glaciers offer unparalleled scenery and opportunities for mountaineering, skiing, ice and rock climbing, camping, and scenic viewing. Scientific research is conducted on the Juneau Icefield through the Foundation of Glacier Research.

Taku-Snettisham (302)

The Taku-Snettisham Roadless Area is on the Juneau mainland and is part of a very extensive mainland roadless area that includes portions of western British Columbia. The area extends north from the Tracy Arm-Fords Terror Wilderness and is bordered to the north by the Skagway-Juneau Icefield Roadless Area. Stephens Passage and two major river inlets, Taku Inlet and Port Snettisham, border the area to the west. The area is separated from saltwater by an electric transmission line corridor in a number of locations. In addition, the northern portion of the area is separated from the Rhine Roadless Area by an electric transmission line that runs from the Annex Creek hydroelectric power plant to Juneau. The U.S./Canadian border forms the east boundary to the area. Juneau, located immediately west of the northern portion of the area, is the closest community.

This area is within the Ice Fields and Northern Coast Range Provinces. The Ice Fields Province is generally characterized by permanent ice fields, active glaciers, and nunatoks (mountain peaks between glaciers).

The area was allocated to eight different LUDs under the 1997 Forest Plan. These eight LUDs were Semi-Remote Recreation (388,317 acres), Remote Recreation (209,629 acres), Modified Landscape (21,641 acres), Scenic Viewshed (20,901 acres), Timber Production (17,595 acres), Old-Growth Habitat (15,236 acres), Research Natural Area (8,575 acres), and Municipal Watershed (282 acres).

The natural features of the area, the scenery, and the opportunity to see wildlife are all considered attractions. High-quality fishing opportunities in the streams and lakes also provide attractions. There are several trails and three public recreation cabins in this roadless area. In addition, Limestone Inlet has been identified as an area of scientific research value and designated as a Research Natural Area.

Juneau Urban (305)

This irregularly shaped area, located on the mainland near Juneau, extends north from the Lemon Creek area to Point Bridget State Park and Echo Cove. The closest community is

the CBJ, located immediately south. Land owned by the CBJ borders the area to the south. Land uses in this adjacent area tend to be urban in nature and there are roads in much of the area. The area is bordered to the east by the Skagway-Juneau Icefield Roadless Area (301).

This area is located in three biogeographic provinces (Lynn Canal, Northern Coast Range, and Ice Fields Provinces). The majority of the area is in the Lynn Canal province.

This area was allocated to five LUDs under the 1997 Forest Plan. These five LUDs were Semi-Remote Recreation (50,213 acres), Scenic Viewshed (25,962 acres), Remote Recreation (9,167 acres), Special Interest Area (7,598 acres), and Old-Growth Habitat (3,422 acres).

The natural features of the area, the scenery, and the opportunity to see wildlife and to study the processes that formed this country are all attractions. The proximity to the Juneau Icefield and the numerous glaciers offer unparalleled scenery and opportunities for mountaineering, skiing, ice and rock climbing, camping, and scenic viewing.

Douglas Island (310)

Douglas Island is directly across Gastineau Channel from the CBJ. The Douglas Island Roadless Area includes only a portion of this island but is completely in the boundary of the CBJ. CBJ land borders the area on all sides except the west, which is bordered by private land. The area is classified as being in the Northern Coast Range Biogeographic Province.

This area was entirely allocated to the Semi-Remote Recreation LUD in the 1997 Forest Plan.

The primary attractions of this area are good hunting, hiking, beautiful scenery, high alpine meadows, and relatively easy access. There are two improved trails, the Treadwell Ditch and Dan Moller Trails, in the area and one public recreation cabin. The cabin is popular year-round. Winter sports, such as cross-country skiing and snowmobiling, are all important uses of this area to local residents. Historic remains, such as the Treadwell Ditch, are also attractions of interest.

Rhine (313)

The Rhine Roadless Area is on the Juneau mainland and is part of a very extensive mainland roadless area that includes portions of western British Columbia. The area is divided into two sections separated by Taku Inlet. The north section occupies the north headland at the mouth of Taku Inlet. Electric transmission line corridors border this portion of the area to the north, south, and west, with Taku Inlet forming the east boundary. The transmission line corridor that borders the area to the north separates it from the Taku-Snettisham Roadless Area (302). The south section of the roadless area is located south of Taku Inlet and comprises a relatively narrow stretch of coastline separated from the Taku-Snettisham Roadless Area (302) by an electric transmission line corridor that forms this section's east border. This portion of the Rhine Roadless Area is bordered by Stephens Passage to the west and the community of Taku Harbor and Taku Harbor State Marine Park to the south.

The area is in the Northern Coast Range Province, which is characterized by little maritime influence and rugged and glaciated topography. This area was allocated to six LUDs in the 1997 Forest Plan. These six LUDs are Scenic Viewshed (17,239 acres), Semi-Remote Recreation (3,011 acres), Old-Growth Habitat (1,965 acres), Timber Production (817 acres), TUC and Minerals.

The opportunity for high quality fishing, especially in Slocum Inlet, may be considered an attraction to the area. Trail 554 follows the shoreline of the north portion of the area.

3 Affected Environment

Acoustical Environment

This section addresses the existing acoustical environment of the Juneau area, including the existing noise level created by helicopters, fixed-wing aircraft, and other contributors to the current environment. Two relevant assessments of ambient noise levels have been made recently. The Forest Service commissioned the first study to provide input to this EIS. The study (Acentech, 1999) includes measurements of helicopter noise and the ambient background noise level at 25 locations throughout Juneau to aid in the assessment of the noise impact of helicopter tours. These measurements were taken using Larsen Davis 870 precision integrating sound level meters and were analyzed in the laboratory. Acentech, Incorporated, performed field measurements as contractor for the Forest Service San Dimas Technology and Development Center (SDTDC). This study, referred to hereafter as the 1999 Noise Assessment, provided most of the information presented in this chapter.

The CBJ commissioned the 2000 Noise Assessment (Michael Baker et al., 2001) in 2000. This study included noise measurements made at 16 semi-permanent locations and 21 temporary noise-monitoring sites between July 29 and September 1, 2000 (Michael Baker et al., 2001). The 2000 Noise Assessment included computer modeling of several types of data, including noise measurements of aircraft events, aircraft operational data, and local weather data. It also included interior noise measurements that can be used to determine the noise levels inside typical residences and the noise reduction provided by residences. The 2000 Noise Assessment is cited in this chapter to augment the information provided by the 1999 Noise Assessment.

Noise Monitoring Sites

The 25 noise monitoring sites selected for the 1999 Noise Assessment were chosen to reflect potential impacts to three groups: residents, recreationists, and wildlife (Acentech, 1999). The sites, shown on Figure 3-2, are described below.

Site 1. This site is at the south end of Thane Road. Sources of noise in this residential area included road and water vehicle traffic; air traffic on approach and departure from the Juneau Airport; house maintenance; and natural sounds including birds, wind in the trees, and dogs barking.

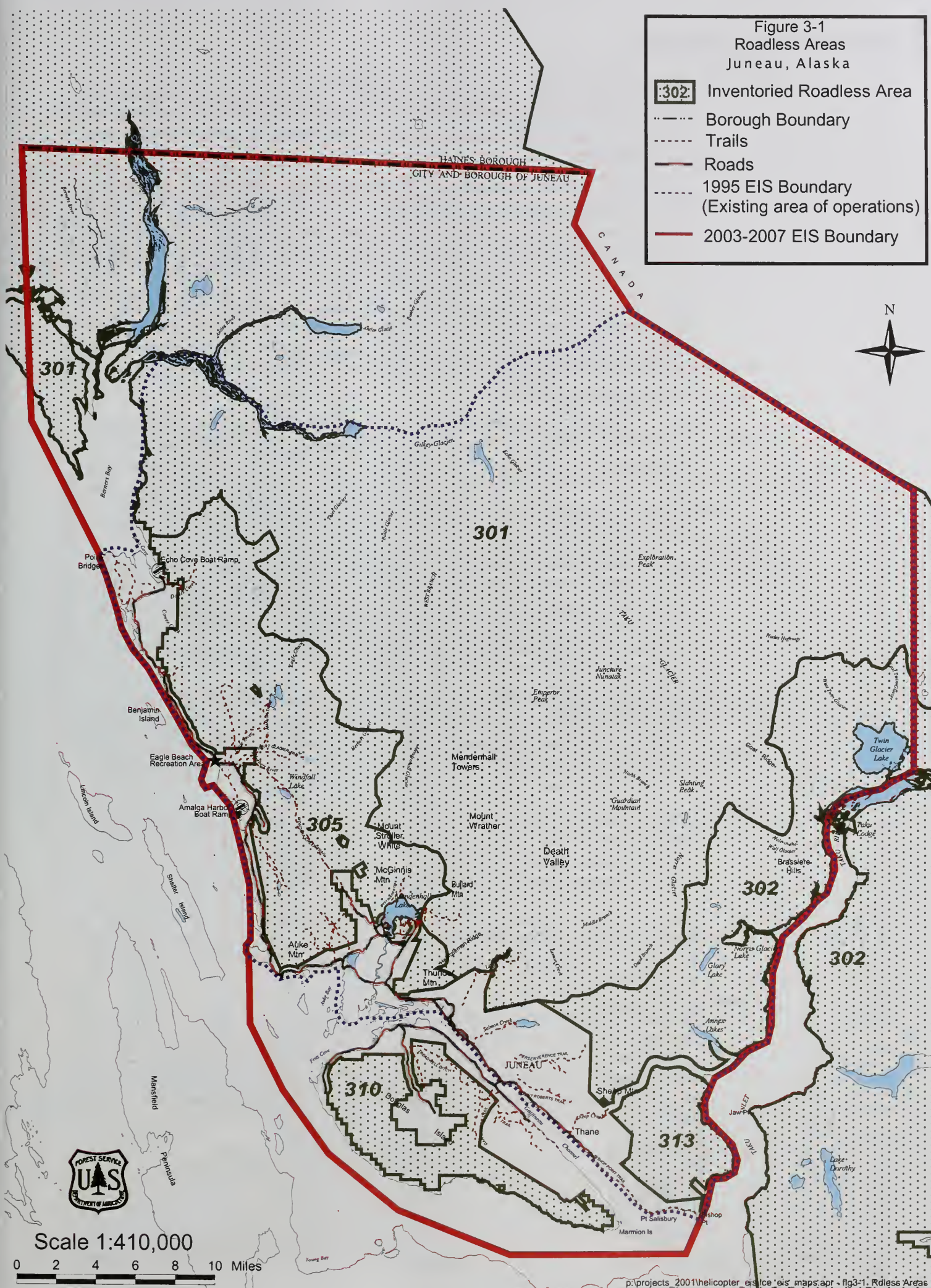
Site 2. This site is on the shore of Auke Bay, in a residential area approximately 1 mile south of Glacier Highway along Fritz Cove Road on the west side of the Mendenhall Peninsula. This site is approximately 2 miles west of the Juneau Airport, and helicopters on flight routes west of the Juneau Airport can be seen and heard from the site. This site is approximately 3 miles west of the Heintzleman Ridge Trail and 3.5 miles southwest of the Dredge Lake Trail. Sound sources contributing to the overall background noise level included jet takeoffs, fixed-wing propeller-driven aircraft, automobile traffic on the nearby road, and marine craft on Auke Bay.

Site 3. This site is in a relatively quiet residential neighborhood near Mendenhall Lake and Mendenhall Campground. The residential area is approximately 4 miles north of Juneau Airport. This site is approximately 0.25 mile east of the Dredge Lake Trail and one-eighth mile from the West Glacier trailhead. At this site, the background sound level was relatively low (35 dB compared to other residential noise measurement sites) and consisted primarily of sounds from helicopters, distant fixed-wing propeller and jet-powered aircraft, and local and distant surface traffic.

Site 4. This site is near the center of the approximately 0.5-square-mile Totem Park residential area and about 0.25 mile northwest of Juneau Airport, near the Mendenhall Wetlands State Game Refuge. Industrial and commercially zoned areas adjoin the residential area on three sides. This site is approximately 1 mile west of the Heintzleman

Figure 3-1
Roadless Areas
Juneau, Alaska

- 302 Inventoried Roadless Area
- Borough Boundary
- Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary



Scale 1:410,000

0 2 4 6 8 10 Miles

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Ridge Trail and 3 miles south of the Dredge Lake Trail. Sound sources that contributed to the overall background sound level included numerous fixed-wing propeller-driven and jet aircraft, trucks and cars on nearby roads, and helicopters. This was a 24-hour noise measurement site.

Site 5. This site is in a residential area along Glacier Highway (which runs parallel to Egan Drive), approximately 0.5 mile southeast of TEMSCO's heliport at the Juneau Airport. The site is at the southern base of Heintzleman Ridge, close to the trailhead of the Heintzleman Ridge Trail. This site was characterized by almost constant sound from nearby roadways, fixed-wing jet and propeller-driven aircraft, and helicopters.

Site 6. This site is along Glacier Highway, in the same general area as Site 5, but approximately 0.15 mile closer to the TEMSCO heliport area. The background sound level was relatively high at this site, including almost constant sound from road traffic on the nearby road and highway and contributions from helicopter and fixed-wing aircraft at the nearby Juneau Airport.

Site 7. This site is in Lemon Creek Valley, approximately 3 miles east of the Juneau Airport between Blackerby Ridge and a residential area. The residential area covers approximately 0.5 mile by 0.33 mile and abuts a commercial and industrial area to the south. This site is approximately 1.5 miles east of the Heintzleman Ridge Trail. The background sound at this site consisted of distant road traffic, fixed-wing jet and propeller-driven aircraft, helicopters, and local traffic on nearby residential streets.

Site 8. This site is across Gastineau Channel from downtown Juneau, in West Juneau, approximately 7 miles southeast of the Juneau Airport. It is at the top of the Blueberry Hills subdivision, approximately 500 feet above sea level at the base of the mountains on Douglas Island. The background sound was dominated by local traffic and floatplane operations from Gastineau Channel near downtown Juneau. Noise from helicopters also contributed to the background sound.

Site 9. This site is in a small mixed-use area approximately 5 miles southeast of the Juneau Airport, at the southwest base of Blackerby Ridge, near Salmon Creek. It is about a block from the hospital facilities and multifamily residential housing units. Background sound at this site consisted of road traffic sound from the nearby highway, helicopters, and fixed-wing jet and propeller-driven aircraft.

Site 10. This site is approximately 2,500 feet above sea level on Bullard Mountain, 6 miles northeast of the Juneau Airport. The background sound level at this site was low (32 dB), consisting of sound from a distant waterfall and from helicopter and fixed-wing aircraft. Mountain goats were observed on the ridge below Mount Stroller-White.

Site 11. This site is at the top of Heintzleman Ridge approximately 2,800 feet above sea level, and 2.5 miles northeast of the Juneau Airport. The background sound level at this site was low (28 dB), consisting of sounds from a distant waterfall and from helicopter and fixed-wing aircraft.

Site 12. This site is on the north side of Gastineau Channel approximately 5 miles southeast of Juneau, 100 feet south of Thane Road, and approximately 200 feet northwest of the Sheep Creek bridge. Sources of noise in this beach area included road and water vehicle traffic, air traffic on approach and departure from the Juneau Airport, helicopters, and natural sounds such as birds and wind arising from the beach located approximately 50 yards away.

Figure 3-2
June 1999 Noise Study
Noise Measurement Sites

Juneau, Alaska

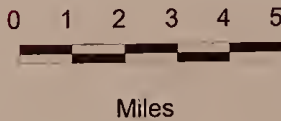


- 1 Berners Bay Cabin
- 2 Blue Mussel Cabin
- 3 Cowee Creek Cabin
- 4 Eagle Glacier Cabin
- 5 Windfall Lake Cabin
- 6 Peterson Lake Cabin
- 7 John Muir Cabin
- 8 Dan Moller Cabin
- 9 Taku Glacier Cabin
- 10 West Turner Lake Cabin

- Borough Boundary
- Requested Flight Routes
- Requested Landing Sites
- Noise Measurement Sites
- ◆ Juneau Icefield Research Camps
- ◆ Cabins - FS and State
- 15 Measurement site numbers (see text for site descriptions)
- Trails
- Roads
- 1995 EIS Boundary (Existing area of operations)
- 2003-2007 EIS Boundary

Contour Interval 200 feet

Scale 1:300,000



Site 13. This site is at the Windfall Lake Cabin, next to Windfall Lake about 10.5 miles north-northwest of the Juneau Airport. Noise sources included waterfalls cascading down nearby mountain slopes, occasional distant fixed-wing aircraft, and helicopters.⁴

Site 14. This site is at the Herbert Glacier Trail terminus, approximately 11.5 miles north-northwest of the Juneau Airport. Noise sources included waterfalls cascading down nearby mountain slopes and occasional distant fixed-wing aircraft. An aircraft incident diverted tour helicopters from the Herbert Glacier area during the monitoring period; therefore, only one helicopter was observed near the site during the measurement period. Most of the observed helicopters were in the distance, near the Juneau Airport. Mountain goats were observed on the ridge across the canyon from the measurement location.

Site 15. This site is at the John Muir Cabin, about 5 miles northwest of the Juneau Airport in Spaulding Meadow on Auke Mountain. Noise sources included helicopters and fixed-wing propeller and jet aircraft landing and departing from the Juneau Airport, then following Stephens Passage or heading toward Mendenhall and Herbert glaciers. As noted above for Site 14, an aircraft incident diverted tour helicopters from the Herbert Glacier area during the monitoring period, so most of the helicopters observed were in the distance near Juneau Airport.

Site 16. This site is at the Eagle Glacier Cabin, next to Eagle Glacier Lake and about 15 miles north-northwest of Juneau Airport. Noise sources included waterfalls cascading down nearby mountain slopes, helicopters, and occasional distant fixed-wing aircraft.

Site 17. This site is next to Antler River, about 1 mile from the lake at Antler Glacier and approximately 29 miles north of the Juneau Airport. Noise sources included waterfalls cascading down adjacent mountain slopes and noise from the flowing river. Mountain goats were observed on the north canyon wall. No helicopter activity or fixed-wing aircraft activity was observed, except for planned test overflights.

Site 18. This site is at Berners Bay, 28 miles north-northwest of the Juneau Airport and about 1 mile north of the Berners Bay Cabin. Noise sources included waterfalls cascading down nearby mountain slopes, watercraft on Berners Bay, and occasional distant fixed-wing aircraft. The weather was clear and warm, but no helicopter activity was observed during the monitoring period.

Site 19. This site is at the Juneau Forest Service Ranger Station, approximately 0.25 mile north of the Juneau Airport in a commercial area, about 300 feet from Egan Drive. The background sound during this test segment consisted of numerous takeoffs by helicopters, fixed-wing propeller-driven aircraft, and jets, and cars and trucks on nearby streets. This was a 24-hour noise monitor site.

Site 20. This site is about 6 miles north of the Juneau Airport on the West Glacier Loop Trail, approximately 500 feet above sea level, overlooking Mendenhall Glacier. Noise sources included waterfalls cascading down nearby mountain slopes, helicopters, and occasional distant fixed-wing aircraft.

Site 21. This site is about 13.5 miles east-northeast of the Juneau Airport, next to Glory Lake. Noise sources included helicopter and distant fixed-wing aircraft over the icefield. Mountain goats were observed on the ridge across the canyon from the measurement site.

Site 22. This site is in the middle of the icefield known as Death Valley. Only distant helicopter noise sources were noted, and only distant helicopter activity was observed. This site had the lowest background noise level (25 dB) of all the measurement sites.

⁴ The decision to construct the Windfall Lake Cabin was made under the public disclosure that it would be located under a heavily used air transportation corridor for flights to Haines, Skagway, area mining activity, and icefield flightseeing tours.

3 Affected Environment

Noise Metrics

Site 23. This site is at Bishop Point, approximately 14 miles southeast of the Juneau Airport on the west side of the mouth of Taku Inlet. Noise sources included waterfalls cascading down nearby mountain slopes, helicopter and fixed-wing aircraft, and marine craft. Observed activities included helicopter and ship noise associated with installation of an electric cable across Taku Bay. Only noise associated with tour helicopters has been included in Table 3-4.

Site 24. This site is in a residential area on Douglas Island, about 2 blocks from the Douglas Highway and 3.5 miles southeast of the Juneau Airport. Noise sources included helicopters, fixed-wing propeller and jet aircraft, gardening activities, and local surface traffic.

Site 25. This site is on the beach just southeast of Douglas on Douglas Island, approximately 9 miles southeast of the Juneau Airport. Sources of noise included marine craft on Gastineau Channel, helicopters, fixed-wing propeller and jet aircraft, surface traffic, and people walking on the beach.

Table 3-4 summarizes the noise monitoring sites and noise-sensitive receptors near each site. The LUD from the Forest Plan is also noted for each non-residential location.

The noise environment is complex around Juneau. It includes noise associated with helicopter tours, fixed-wing aircraft, surface vehicles, and marine vehicles, in addition to other sounds associated with urban, rural, and backcountry areas (Acentech, 1999). Noise propagation in the area is also affected by several environmental factors, including meteorological conditions (high humidity, overcast conditions, and frequent inversions), terrain, and the proximity of large bodies of water. In Juneau, all of these environmental factors contribute to a greater-than-normal rate of noise propagation (Michael Baker et al., 2001).

Several technical terms are used to describe the existing noise environment in the Juneau area. They include the following:

Decibel (dB). The decibel is a unit for expressing relative intensity of sounds on a scale from zero for the average least perceptible sound to about 130 for the average pain level.

A-weighting. Sounds have various qualities associated with them, depending on their frequency content. Tubas, for example, produce low-frequency sounds, and whistles typically produce high-frequency sounds. Sounds in our environment have their own frequency content that allows them to be distinguished from other sounds. Humans and other species hear mid- to high-frequency sounds better than they hear low-frequency sounds. Researchers have developed frequency weightings that correspond to how humans perceive the loudness of sound at various frequencies. Research has found that people make relative judgments regarding the loudness, annoyance, or disturbance of sounds that correlate well with the frequency weighting called the “A-weighting.” Consequently, A-weighted sound levels normally are used to describe environmental sounds (Acentech, 1999), and all metrics reported in this EIS are A-weighted.

Sound exposure level (SEL). This metric combines both A-weighted sound magnitude and the duration of the event. When two events of the same magnitude are rated, researchers have found that the event lasting the longest will be rated as the noisier or more annoying. Aircraft noise, and specifically helicopter noise, falls into the broad category of transient noise, which is characterized as sound that increases over a period of time to a maximum level, then decreases to a level that corresponds to the normally fluctuating background noise. SEL is widely used to describe the noises generated by various transportation noise sources because it can quantify transient noise (Acentech, 1999).

Table 3-4. 1999 Noise Monitoring Sites and Noise-Sensitive Receptors

Site Number and Name	Noise-Sensitive Resource Group		
	Wildlife	Recreationist	Residents
1. Thane - End of Thane Road			X
2. Fritz Cove Road/Auke Bay			X
3. Arctic Circle/Mendenhall Campground			X
4. ¼ Mile North of Juneau Airport			X
5. Glacier Highway/Heintzleman Ridge			X
6. Glacier Highway/Fred Meyer			X
7. Lemon Creek			X
8. West Juneau			X
9. Salmon Creek/Below Blackerby Ridge			X
10. Mt. Bullard (mostly natural setting: Semi-Remote Recreation) ¹	X	X	
11. Heintzleman Ridge/Thunder Mountain 3,000 feet (mostly natural setting: Semi-Remote Recreation)	X	X	
12. Thane/Sheep Creek Bridge, Hatchery			X
13. Windfall Lake Cabin (mostly natural setting: Semi-Remote Recreation)	X	X	
14. Herbert Glacier Trail Terminus (mostly natural setting: Semi-Remote Recreation)	X	X	
15. John Muir Cabin/Spaulding Meadows (mostly natural setting: Semi-Remote Recreation)		X	
16. Eagle Glacier Cabin (unmodified natural setting: Remote Recreation)	X	X	
17. Antler River below lake at Antler Glacier (mostly natural setting: Remote Recreation)	X	X	
18. Berners Bay (mostly natural setting: LUD II – congressionally designated unroaded area with primitive recreation facilities)	X	X	
19. Juneau Ranger District Office			X
20. West Glacier Trail/Stroller White (Special Interest Area: Mendenhall Glacier Recreation Area - generally unmodified environment)	X	X	
21. Glory Lake (mostly natural setting: Semi-Remote Recreation)	X		
22. Death Valley (mostly natural setting: Remote Recreation)	X	X	
23. Point Bishop (moderate development: scenic viewshed, but with timber harvesting and proposed state road)		X	
24. Bonnie Doon/Douglas Highway			X
25. Sandy Beach/Douglas			X

Source: Acentech, 1999.

¹ LUDs specified in the 1997 Forest Plan:

- Special Interest Area: MGRA– Provides for public study, use, and enjoyment of unique natural areas that are suitable to, and do not compromise, the characteristics of each area.
- LUD II – Similar to Remote and Semi-Remote LUD management objectives.
- Semi-Remote Recreation – Provides motorized and non-motorized recreation opportunities in natural and natural appearing settings. When present, roads are few and are used primarily to expand and improve access to recreational opportunities or to permit access to other parts of the forest and other ownerships.
- Remote Recreation – Provides for recreation opportunities and experiences outside wilderness areas in unmodified natural environments. Roads are absent when possible.

3 Affected Environment

Hourly noise level (HNL) or hourly A-weighted energy equivalent level ($L_{eq, 1 \text{ hr}}$).

These values represent the constant sound level that equals the sound energy of the actual time-varying sound over a specific time period (Acentech, 1999).

Day/night average sound level (DNL or L_{dn}). Community response to noise is not based upon a single event, but on a series of events over a day. Subjective response is affected by the noise level of individual events, the duration of the event, the number of events per day, and the time of day these events occur. DNL is a single-number, 24-hour noise exposure metric that takes each of these factors into consideration. Federal agencies such as the U.S. Environmental Protection Agency (EPA), the FAA, and the Department of Defense (DOD) use DNL to depict the relationship between a particular noise exposure and community annoyance (Acentech, 1999). Some current noise analysts, however, consider the DNL metric more appropriate for planning and zoning decisions than as a realistic tool for helping people decide where it will be quiet and where it will not be quiet (Hart, 2001).

Modified DNL or L_{dn} . DNL is a 24-hour metric that gives extra weight to nighttime noise, when receptors are assumed to be more sensitive to noise. Because helicopter tours around Juneau take place only during the daytime, a modified DNL metric has been developed to account for daytime hours only (Michael Baker et al., 2001).

L_{90} . This metric indicates the sound level that is exceeded 90 percent of the time. It is often used to describe the background noise level (Acentech, 1999).

Time Above. One of the distinguishing characteristics of flightseeing noise is its long duration, especially in areas such as Juneau that have frequent flights. Time Above depicts the total time during a day that noise exceeds a certain level (for example, total minutes above 65 dB) (Michael Baker et al., 2001).

Ambient Noise Level

Table 3-5 provides a summary of the ambient noise level measurements made at each of the 25 noise-monitoring sites during the 1999 Noise Assessment. The table shows four noise metrics that describe the noise environment at each site and indicates the number of helicopters and fixed-wing aircraft that contributed to the existing noise environment at each location.

The noise levels measured in and around Juneau fall within an expected range of aircraft noise that is generally characterized as moderately loud in the outdoor environment. The 2000 Noise Assessment showed an approximate 20-dB lessening in sound levels indoors compared to the same-time outdoor sound level (Michael Baker et al., 2001), which suggests indoor sound levels in the quiet range.

Noise Duration

The 2000 Noise Assessment (Michael Baker et al., 2001) indicates that annoyance from noise events increases with the duration of the noise, and that factor is critically important in and around Juneau. Specifically, the following is true:

The relationship between duration and noise level is the basis of the equivalent energy principal of sound exposure. Reducing the acoustic energy of a sound by one-half results in a 3-dB reduction. Doubling the duration of the sound increases the total energy of the event by 3 dB. This equivalent energy principal is based upon the premise that the potential for a noise to impact a person is dependent of the total acoustical energy content of the noise. DNL, L_{eq} , and SEL are all based upon the equal energy principle.

Table 3-5. Summary of Ambient Noise Level Measurements, 1999

Site Number	Sound Measurement Test Results						
	Background Level L_{90} , dB	Daytime $L_{eq, 1-hr}$, dB	Typical Aircraft SEL, dB			Observed Aircraft/Hour	
			Helicopter	Fixed- wing	L_{dn} , dB ¹	Helicopters	Fixed- wing
1. Thane - End of Thane Road	47	57	77	83	<58>	6.1	5.0
2. Fritz Cove Road/Auke Bay	44	53	77	75	<54>	4.9	10.9
3. Arctic Circle/Mendenhall Campground	35	51	75	73	<52>	16.4	4.5
4. ¼ Mile North of Juneau Airport	41	60	70	-	62	-	-
5. Glacier Highway/ Heintzleman Ridge	54	58	77	72	<60>	17.4	9.4
6. Glacier Highway/Fred Meyer	57	63	83	79	<65>	13.0	8.7
7. Lemon Creek	48	51	68	70	<53>	9.8	1.1
8. West Juneau	42	55	76	77	<56>	15.5	5.8
9. Salmon Creek/below Blackerby Ridge	51	58	78	79	<60>	22.1	2.3
10. Mt. Bullard	32	45	67	65	-	17.5	3.9
11. Heintzleman Ridge/Thunder Mt.	28	53	75	-	-	17.7	0
12. Thane/Sheep Creek Bridge, Hatchery	47	56	75	80	<57>	21.1	4.8
13. Windfall Lake Cabin	29	50	74	77	-	10.7	1.3
14. Herbert Glacier Trail Terminus ²	51	53	62	80	-	0.4	1.1
15. John Muir Cabin/Spaulding Meadows	26	51	79	80	-	8.6	0.4
16. Eagle Glacier Cabin	41	49	79	-	-	3.9	0
17. Antler River below lake at Antler Glacier	52	53	-	-	-	0	0
18. Berners Bay	37	40	-	-	-	0	0
19. Juneau Ranger District Office	51	63	74	-	63	-	-
20. West Glacier Trail/Stroller White	42	53	75	-	-	19.2	0
21. Glory Lake	44	54	78	75	-	13.0	1.9
22. Death Valley	25	39	58	-	-	5.2	0
23. Point Bishop	38	62	74	85	-	8.4	6.7
24. Bonnie Doon/Douglas Highway	40	54	73	79	<56>	8.9	6.8
25. Sandy Beach/Douglas	45	57	73	74	<58>	9.5	15.9

Source: Acentech, 1999.

¹ L_{dn} was measured at two locations. <> denotes those locations where the L_{dn} was estimated based on the daytime L_{eq} sample and the proximity to major roads or the airport.

² Because of a June 9, 1999, aircraft incident at Herbert Glacier, the results and observations at these sites may not be indicative of normal flight conditions.

L_{90} . The L_{90} , or background noise level, ranged from 25 dB at the remote Death Valley site (22) to 57 dB at the Glacier Highway/Fred Meyer site (6) near the airport. Of 13 sites noted as being near residential receptors (see Table 3-4), only one site (3) had an L_{90} lower than 40 dB, while four residential sites (5, 6, 9, and 19) had an L_{90} higher than 50 dB (Acentech, 1999). As noted on Table 3-6, an outdoor noise level of 50 dB is considered "quiet." Most people can detect changes of 2 to 3 dB, a 5-dB change is readily noticeable, and a 10-dB change is judged as doubling or halving the loudness of a sound (Michael Baker et al., 2001).

$L_{eq, 1 hr}$. The equivalent constant sound level measured at each site ranged from 39 dB at Death Valley (22) to 63 dB at Glacier Highway/Fred Meyer (6) and at the Juneau Ranger District office (19). Sound levels at the 13 sites with residential receptors were all above 50 dB, and 3 sites were above 60 dB (Acentech, 1999).

SEL. The single-event metric associated with helicopter flyovers ranged from 58 dB at Death Valley (22) to 83 dB at Glacier Highway/Fred Meyer (6), the same sites that identify the low/high range for the other metrics. Almost all of the SELs are above 70 dB, indicating moderately loud noise levels during flyovers (Acentech, 1999).

L_{dn} . For the 1999 Noise Assessment (Acentech, 1999), the DNL was measured at 2 sites and estimated at 11 other sites. The DNL was at or above 55 dB at 11 of the sites, and it equaled 65 dB at Site 6, Glacier Highway/Fred Meyer. None of the sites had a DNL greater than 65 dB. The 2000 Noise Assessment (Michael Baker et al., 2001) reports similar results. DNL noise levels associated with flightseeing operations ranged from 50 to 57 dB, with the highest levels noted near the airport.

Modified L_{dn} . Looking only at the daytime hours, the 2000 Noise Assessment reports DNL levels on peak days at 3 to 5 dB higher than the average DNL (Michael Baker et al., 2001).

3 Affected Environment

Table 3-6. Sound Levels of Selected Noises in Indoor and Outdoor Environments

dB	Overall Level	Outdoors	Indoors
130	uncomfortably loud		
120 - 110			rock band concert
100	very loud	jet flyover at 1,000 feet	
90	very loud	power mower Boeing 727 at 6,000 feet before landing	
80		propeller airplane flyover at 1,000 feet	food blender garbage disposal
70	moderately loud	passenger car (65 mph) freeway (50 feet from pavement)	living room music TV audio vacuum cleaner
60		air conditioning unit	cash register dishwasher
50	quiet		
40		bird calls lower level of urban ambient sound	
30			
20	just audible		
10	threshold of hearing		

Source: Branch and Beland, 1970.

In 1999, there were 16,706 landings on the icefield. Assuming there are two overflights per landing and the tour season consists of 140 days, there would be an average of 239 flights each day. Given 11.5 landing hours per day, there would be an average of 21 overflights per hour throughout the area. However, Juneau weather conditions result in some hours and days when no flights occur or only certain routes are open so that average flights per hour would be higher during good weather. Based on observations at all sites, for example, the 1999 Noise Assessment estimated 64 tour helicopters per hour and 31 fixed-wing aircraft per hour (Acentech, 1999) when all sites were combined. All but one of the measurement days had exceptionally good weather and probably represented peak helicopter activity.

The number of overflights would, of course, vary by site. During an October 27, 2000, meeting in Juneau, one resident told of logging overflights one weekday in June. Her account is reported as follows (Triangle Associates, 2000):

The first craft came by at 7:19 a.m. Over the course of the morning, before noon, 111 planes had flown by. By mid afternoon, the number reached 183. The noise levels when the aircraft flew overhead were such that excavator operators working in her yard and the adjacent property stopped their work to watch them pass overhead.

The number of overflights also varies based on the hour of the day. In a presentation made November 6, 2000, for example, Paul Dunholter, CBJ's noise consultant, reported that noise events at one 2000 Noise Assessment measurement site peaked at 17 events between 10:00 a.m. and 11:00 a.m. (Dunholter, 2000).

The 2000 Noise Assessment indicates that the typical duration of flightseeing helicopter noise is 1 to 3 minutes per event, with some as long as 5 minutes (Michael Baker et al., 2001). The longer events were generally associated with multiple craft flying in a group.

More typical durations for aircraft flyovers are 0.5 to 1 minute per event (Michael Baker et al., 2001).

The noise metric that takes duration explicitly into account is the Time Above metric. The 2000 Noise Assessment reports the following results:

- Time Above 75 dB, reflecting a noise level when aircraft are loud enough to clearly interfere with speech. This takes place less than 1 percent of the time.
- Time Above 65 dB, when aircraft would start to cause interference with speech. This takes place 2 to 5 percent of the time.
- Time Above 55 dB, reflecting periods when aircraft are clearly audible. This takes place 15 to 25 percent of the time. During certain hours of the day, the time above 55 dB was up to 90 percent of the time (Michael Baker et al., 2001).

These results indicate that the duration of noise in the Juneau area can be particularly disturbing in the existing environment, even though the decibel level itself is not high by aircraft noise measurement standards.

Helicopter and Fixed-Wing Aircraft Contribution to Ambient Noise Level

The contribution of helicopters and fixed-wing aircraft to the existing noise environment was estimated for the 1999 Noise Assessment using noise modeling and the data in Table 3-5. The results of this modeling are presented in Table 3-7, which shows the contribution from tour helicopters (excluding all other helicopter overflights), the contribution from fixed-wing aircraft, and the total contribution from both sources of noise. The measured daytime $L_{eq, 1-hr}$ data from Table 3-5 is included for comparison purposes.

Tour helicopter noise is a major contributor to the daytime ambient noise at those locations where the contributions from tour helicopter noise is within 3 dB of the measured daytime $L_{eq, 1-hr}$. This includes locations 3, 8, 9, 10, 11, 15, 16, 20, 21, and 22. Tour helicopter noise is a secondary contributor to daytime ambient noise levels at those locations where the helicopter noise is within the range of 4 to 5 dB of the measured daytime $L_{eq, 1-hr}$. That includes sites 5, 6, 12, and 13 (Acentech, 1999).

Tour helicopter noise is a minor contributor to daytime ambient noise at those sites (1, 2, 4, 7, 14, 17, 18, 19, 23, 24, and 25) where the helicopter noise contribution is more than 5 dB below the ambient noise. Locations 4 and 19 are near the airport, where fixed-wing aircraft noise is a significant contributor to the ambient noise. The measured daytime $L_{eq, 1-hr}$ at site 23 was greatly influenced by construction activities; when construction activities subside, however, the estimates of noise contribution indicate that noise from fixed-wing aircraft is more significant than noise from tour helicopters at this location (Acentech, 1999).

Safety Environment

Current indications are that the helicopter tours contribute to the generally excellent aircraft safety record in and around Juneau. The tour operators belong to various aircraft organizations, including the Tour Operators' Program of Safety (TOPS), Helicopters Association International (HAI), and Alaska Air Carriers Association (AACA). Information provided by TOPS indicates that from 1996 through 2000, TOPS members experienced an average annual accident rate of 1.63 accidents per 100,000 flying hours. This compares to an average accident rate for general aviation of 6.98 accidents per 100,000 flying hours and an average rate for all civil helicopters of 8.16. During the same period, TOPS members experienced an average annual fatal accident rate of 0.59 per 100,000 flying hours, compared with a fatal accident rate of 1.31 for general aviation and 1.39 for all civil helicopters (Engelbrecht, 2001).

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As noted in Chapter 2 under *Mitigating Measures for Safety*, the helicopter landing tour operators are required to follow FAA safety requirements as well as Forest Service requirements spelled out in each operator's Operating Plan. In addition to these requirements, two current initiatives are being undertaken to enhance aircraft safety:

- The AACA and its members are implementing a safety program that is expected to be more specific to aviation safety in Alaska than nationwide programs such as TOPS (Wilson, 2001).
- The FAA Alaska Region is supporting the new Capstone Program that is designed to improve aviation safety and efficiency by putting cost effective new avionics equipment into aircraft and providing the supporting ground infrastructure (FAA, 2001b). The program is tentatively planned for June 2002. At this time, we understand that all four helicopter landing tour operators will have the equipment installed (Forest Service, 2001b). The Capstone Program includes equipping aircraft used by commercial operators with a Global Positioning System-based avionics package. On the unit display screen, terrain information is depicted relative to the aircraft's position so that the relative bearing and distance may be determined. A flashing terrain advisory flag is displayed whenever the aircraft is within 500 vertical feet of the terrain, or when the aircraft is within two minutes, horizontally, of terrain (Forest Service, 2001b). The Capstone Program is expected to reduce the number of mid-air collisions, controlled flight into terrain, and weather-related accidents in Alaska (FAA, 2001b).

Air Quality Environment

Air quality in the Juneau area has been monitored annually since 1996 (EPA, 2002). An air quality monitoring station was established on Mendenhall Valley Road after public health standards for particulate matter were exceeded in the early 1990s (Forest Service, 2001c). Particulate matter less than or equal to 10 micrometers, or PM_{10} , is measured in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). There are two standards for PM_{10} : 150 $\mu\text{g}/\text{m}^3$, measured as a 24-hour average; and 50 $\mu\text{g}/\text{m}^3$, measured as an annual average.

As shown in Table 3-8, both the 24-hour average and the annual average PM_{10} values for the Juneau area have shown a general decreasing trend since 1996, indicating improvements in air quality. Neither standard was exceeded during the 6-year period from 1996 to 2001, apparently due, in part, to the control strategy implemented by CBJ, including a wood smoke control program and road paving projects (Forest Service, 2001c). The last time the PM_{10} standards in Mendenhall Valley were exceeded was in 1993, when 24-hour average values of 313, 224, and 169 $\mu\text{g}/\text{m}^3$ were recorded on three separate dates.

Table 3-7. Estimated Contribution of Aircraft Noise to Existing Ambient Noise Level

Site Number and Name	L _{eq} 1-hr ² dB			Measured Daytime	Tour Helicopter Contribution to Ambient
	Tour Helicopters	Fixed-Wing	Fixed-Wing + Tour Helicopters		
1. Thane - End of Thane Road	49	54	55	57	
2. Fritz Cove Road/Auke Bay	48	50	52	53	
3. Arctic Circle/Mendenhall Campground	51	43	52	51	Primary
4. ¼ Mile North of Juneau Airport		not estimated		60	
5. Glacier Highway/Heintzleman Ridge	54	46	55	58	Secondary
6. Glacier Highway/Fred Meyer	59	52	60	63	Secondary
7. Lemon Creek	43	34	43	51	
8. West Juneau	52	50	54	55	Primary
9. Salmon Creek/below Blackerby Ridge	56	47	57	58	Primary
10. Mt. Bullard	44	35	45	45	Primary
11. Heintzleman Ridge/Thunder Mt.	51	none	51	53	Primary
12. Thane/Sheep Creek Bridge, Hatchery	52	51	55	56	Secondary
13. Windfall Lake Cabin	46	42	47	50	Secondary
14. Herbert Glacier Trail Terminus	22	45	45	53	
15. John Muir Cabin/Spaulding Meadows	52	41	52	51	Primary
16. Eagle Glacier Cabin	49	none	49	49	Primary
17. Antler River below lake at Antler Glacier	none	none	none	53	
18. Berners Bay	none	none	none	40	
19. Juneau Ranger District Office		not estimated		63	
20. West Glacier Trail/Stroller White	52	none	52	53	Primary
21. Glory Lake	54	42	54	54	Primary
22. Death Valley	39	none	39	39	Primary
23. Point Bishop	47	58	58	62	
24. Bonnie Doon/Douglas Highway	47	52	53	54	
25. Sandy Beach/Douglas	46	54	55	57	

Source: Acentech, 1999.

Table 3-8. Daily Maximum and Annual Average Values for Particulate Matter (PM₁₀), 1996 – 2001 (µg/m³)

	1996	1997	1998	1999	2000	2001
Maximum 24-hour average concentration (Standard = 150 µg/m ³)	86	70	48	28	33	28
Annual average concentration (Standard = 50 µg/m ³)	15.3	10.7	10.6	6.6	7.5	6.1

Source: EPA, 2002.

Note: Other air quality parameters in Juneau are reported within acceptable standards.

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

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CHAPTER 2

SWITCHING AND LOGIC



Chapter 4

Environmental Consequences

Introduction

This section provides the analytical basis comparing the alternatives outlined in Chapter 2. It details the anticipated environmental effects associated with implementation of each of the alternatives. The environmental effects are presented by alternative first for the acoustical environment and for each of the four defined issues: residents, recreationists, wildlife, and new areas. These discussions are followed by a discussion of environmental effects on Inventoried Roadless Areas, safety, and air quality, as well as cumulative effects.

No effects on the icefield environment are expected other than those discussed in the context of environmental consequences to recreationists, below. The following conditions are built into the special use permits for tour operators and would reduce effects on the icefield to a negligible level:

- Trails and enclave structures will be designed and located to blend with the icefield surroundings and reasonably minimize visual impact. Doghouses, for example, will be white. Exceptions will be made as necessary for safety, such as colored flagging or fencing to prevent visitors from straying into potentially hazardous areas.
- All structures, supplies, gear, etc. will be completely removed from the icefield at the end of the season.
- All food brought to the icefield will be stored in sealed plastic containers.
- All gray water, human waste and dog waste will be stored in sealed leakproof containers, and will be transported off-site to an approved waste disposal site.
- No more than three 55-gallon drums of waste and wastewater may be stored at an activity site at any given time.
- Dog kennels will be cleaned four times a day, and dog waste will be removed from trails at least once each day.
- Propane will be used in all cooking and heating stoves, minimizing the possibility of any fuel leaks or spills on the icefield.
- Gasoline-powered generators may be used to charge radio batteries and power small handheld tools, but no more than five gallons of gasoline will be allowed on the icefield at any time.
- Up to two snow machines are allowed on site at the dogsled mushing trail for grooming and maintenance.
- Only the minimum amount of fuel necessary to operate the snow machines, gasoline-powered engines for emergency response, battery charging, and outhouse tank pumping will be allowed on site. No more than 20 gallons may be on any one enclave site at any one time. The intent is to minimize the possibility of fuel spillage on the icefield environment.

4 Environmental Consequences

- Gasoline and oil will be stored in tight metal or plastic containers to prevent spills, and all fuel containment will be in OSHA-approved containers.
- Gasoline-powered equipment will be operated only during times when clients are not on site in order to preserve the non-motorized recreational experience for the clients. Gasoline-powered equipment will, therefore, be operated primarily at night and during the noon rest period for the outfitter guides and mushing dogs.
- All petroleum products and equipment that are powered by such will be handled, stored, and maintained in catchment basins and/or double-walled tanks, and absorbent cloths will be readily available in case of any spills.
- All visitors will be taught and expected to practice low-impact, Leave No Trace ethics.

Changes in Acoustical Environment

Each of the alternatives would have a different impact on the acoustical environment, related not only to the total number of landings allowed but also to the average number of landings each day and each hour during the operating season, and more importantly, to the number of days per week that landings are allowed. Table 4-1 indicates the change in the noise environment that would occur, on average, under each of the action alternatives. Alternative A, No Action, is not included because the effect of allowing no landings at all is indeterminate. There would be no noise associated with landing tours because landing tours would be discontinued. The number of flightseeing tours without landings, however, would probably increase to compensate for the loss, and the overall impact on noise cannot be estimated.

Table 4-1. Change in Noise Environment Compared to 1999 Authorized Use and 1999 Actual Use, by Alternative

	Authorized in 1999	Actual in 1999	Alternative						
			B	C	D	E	F	G	H
Landings per season	19,039	16,706	11,881	16,706	19,039	19,039	24,229	30,662	22,040
Number of landing days per season ¹	153	153	106	128	128	153	153	153	153
Average landings per day (by 2007)	124	109	112	131	149	124	158	200	144
Average operating hours per day	11.5	11.5	9.5	11.5	11.5	11.5	11.5	11.5	11.5
Average landings per hour (by 2007)	10.8	9.5	11.8	11.4	13.0	10.8	13.7	17.4	12.5
dB change in L_{eq} ²									
Compared to permitted landings in 1999	0.0	-0.6	+0.4	+0.2	+0.8	0.0	+1.1	+2.1	+0.6
Compared to actual landings in 1999	+0.6	0.0	+0.9	+0.8	+1.4	+0.6	+1.6	+2.6	+1.2

Source: Based on Acentech, 1999.

¹ Based on a use season of May 1 – September 30. Note that the permit season in 1999 extended from May 15 to September 15 (124 days). To allow a meaningful comparison between 1999 values and those for the alternatives, calculations of average landings per day in 1999 are based on the May 1 – September 30 season length (153 days).

² Change in dB = $10 \cdot \log(\text{ratio of landings per hour of alternative/landings per hour in 1999})$

Because the noise impact of the No-Action Alternative is indeterminate, the effects of the action alternatives are compared here to the noise environment associated with the permitted level of landings in 1999 and the actual number of landings in 1999. The change in the $L_{eq, 1 \text{ hr}}$ ranges from zero to 2.6 dB. A change of 1 dB is barely detectable by the average listener in the laboratory under controlled conditions. In the outdoor environment under uncontrolled conditions, a change of 3 dB is considered to be barely detectable, and in most noise studies would be considered an insignificant change.

As noted earlier, however, other considerations are important in the Juneau area. Where existing noise is already considered unacceptable, any increase in the noise level will be objectionable, even if it cannot normally be detected by the average person. Another way of looking at the same situation is by considering the associated energy level. When there are multiple operations (such as many helicopter overflights) contributing to the L_{eq} , the L_{eq} will increase 3 dB if the number of operations is doubled (that is, if the energy level is doubled, assuming all operations produce the same noise level). A person exposed to this change might slightly notice that the noise level has increased—it is still the same noise level per operation—but he or she would certainly notice that the number of operations has doubled.

This point is illustrated in Table 4-1, which shows that the greatest estimated change in the $L_{eq, 1 \text{ hr}}$ is a 2.6-dB increase under Alternative G, compared to the noise level associated with the actual number of landings in 1999. Table 4-1 also shows that there was an average of 9.5 landings per hour of operation in 1999, while average landings per hour under Alternative G would equal 17.4; thus, an 84 percent increase in the number of operations per hour would yield a 2.6-dB increase in the L_{eq} . While a 2.6-dB increase in the noise level might be only slightly noticeable, an 84 percent increase in the number of helicopter flights certainly would be noticed.

Given the situation in Juneau, the focus of the rest of this section will be on the number of days that landings are allowed and the average number of landings per day and per hour, rather than on the actual decibel change in the noise level. This recognizes that it is the duration of noise and the number of events, rather than the absolute noise level, that is most at issue. While it is recognized that flights do not take place uniformly throughout the day, but rather tend to peak during the day, the average landings per hour is used to show relative differences among the alternatives.

It is also important to note that the number of landings per day can vary considerably. On some days, weather conditions may prevent landings altogether. On other days, considerably more landings than average may take place, for instance, when large numbers of cruise ship passengers are in town. During any given season, the date with the greatest number of landings varies for the different helicopter companies, based on their destinations, the availability of clients, and other variables. Again, the primary purpose of using average values is to allow comparison of the relative effects of the alternatives.

In the discussions that follow, average values for landings per day and landings per hour under each alternative are compared to values that are based on the actual number of landings that occurred in 1999. The permit season in 1999 extended from May 15 to September 15 (124 days), rather than the May 1 through September 30 season (153 days) used in this EIS. To allow a meaningful comparison between 1999 values and those for the alternatives, calculations of average landings per day in 1999 are based on a season length of 153 days.

Environmental Consequences for Residents

How Noise Effects on Residents are Estimated

The effects of noise on people can take a number of forms, including the following:

- **Hearing loss.** The Occupational Safety and Health Administration (OSHA) has identified a noise exposure limit of 90 dBA for 8 hours per day to protect workers from hearing loss. Higher limits are set for shorter durations. Noise levels in Juneau are not high enough to cause hearing loss (Michael Baker et al., 2001).
- **General health.** A recent study in Minnesota found a correlation between the severity of exposure to aircraft noise and general health (Meister and Donatelle,

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2000). The study found that general health measures were significantly worse in neighborhoods exposed to commercial aircraft noise than in communities not exposed to the noise, and that the greater the severity of the noise, the worse the health measures were. People residing in neighborhoods exposed to commercial aircraft noise had significantly higher stress and noise annoyance levels, and their sense of well-being was adversely affected (Meister and Donatelle, 2000). Those reported as most adversely affected were exposed to an average 399 events per day exceeding 65 dBA, and an average 4 events per day exceeding 100 dBA. Noise levels in Juneau do exceed 65 dBA for single events, but these are reported to occur just 2 to 5 percent of the time (Michael Baker et al., 2001).

- **Classroom learning interference.** Studies have shown that a child's reading ability can be negatively affected by aircraft in noise impact zones, specifically, a decrement in reading has been found when outdoor noise levels are at an L_{eq} of 65 dB or higher (Federal Interagency Committee on Aviation Noise [FICAN], 2000). The highest $L_{eq, 1-hr}$ measured in Juneau was 63 dB at Glacier Highway/Fred Meyer (see Table 3-7).
- **Sleep interference.** Because helicopter flightseeing tours take place during the day, sleep interference generally is not a primary concern in Juneau, except for night workers, the elderly, and those trying to sleep during the day. Some residents have reported interference with sleep (TAC, 2000a).
- **Communication interference.** Normal conversational speech is in the range of 60 to 65 dBA (Michael Baker et al, 2001). Interference with communication can occur at the noise levels noted in the Juneau area.
- **Annoyance.** The primary noise-induced effect in the Juneau area is annoyance. That is the topic of the following discussion.

Noise-induced annoyance is perhaps most often defined as a generalized adverse attitude toward noise exposure. Noise annoyance is affected by many factors, including sleep and speech interference and task interruption. The level of annoyance may also be affected by many non-acoustic factors, as follows:

- In communities where noise is the primary source of annoyance, reductions in noise exposure can be expected to lead to reductions in annoyance. In communities where non-acoustic factors, such as odor or traffic congestion, are the primary sources of annoyance, there may be little or no reduction in annoyance associated with reductions in noise exposure (Acentech, 1999).
- The intensity of community response to noise exposure may, in some cases, be essentially independent of physical exposure. In the case of community response to actions, such as airport siting or scheduling supersonic transport aircraft, vigorous reaction has been encountered at the mere threat of exposure, or minor increases in exposure (Acentech, 1999).
- Other research has shown that noise annoyance is associated with a number of other factors, including a fear of aircraft crashing; the belief that aircraft noise could be reduced or prevented by pilots, designers, or airline authorities; and a general sensitivity to noise (Fields et al., 1992).

Overall, 2 to 10 percent of the population are estimated to be highly susceptible to annoyance from noise not of their own making, while approximately 20 percent are not annoyed by noise (Michael Baker et al., 2001).

The standard method for determining the prevalence of annoyance in noise-exposed communities is an attitudinal survey. Surveys generally solicit self-reports of annoyance through one or more questions of the form "How bothered or annoyed have you been by

the noise of (noise source) over the last (time period)?" Respondents typically are constrained in structured interviews to select one of a number of response alternatives, often named categories such as "not at all annoyed," "slightly annoyed," "moderately annoyed," "very annoyed," or "extremely annoyed."

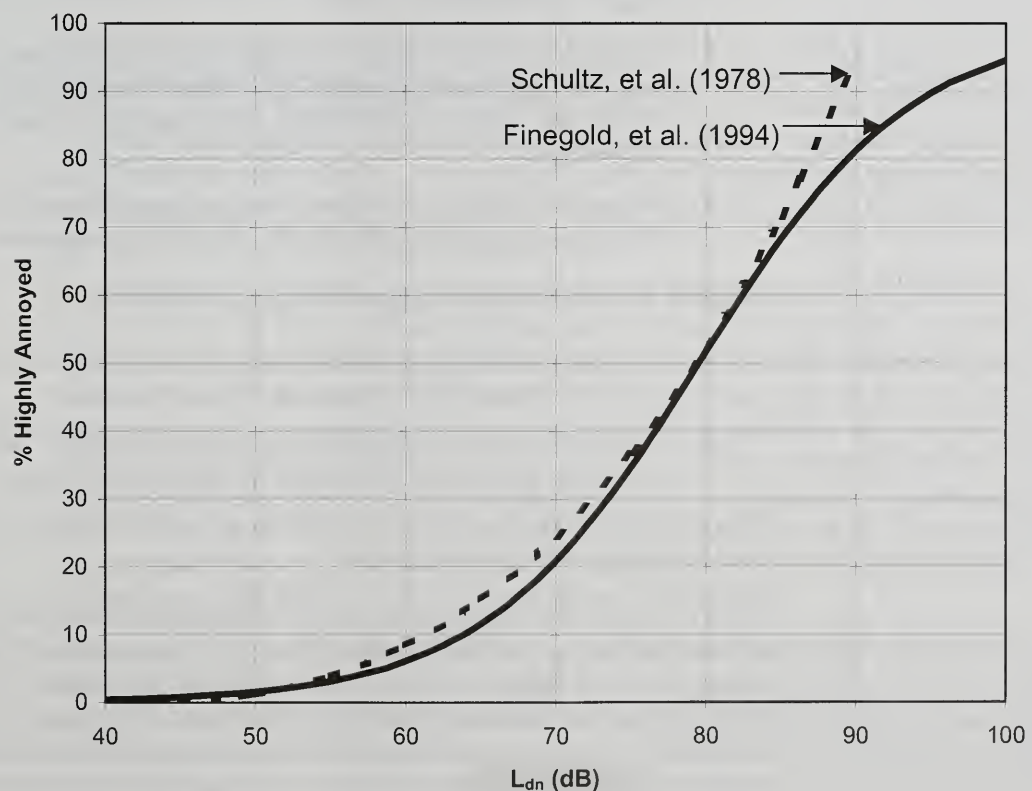
Predictions of the prevalence of annoyance in a community can be made by extrapolation from an empirical dosage-effect relationship. Based on the results of a number of sound surveys, Schultz developed a relationship between percent highly annoyed and L_{dn} , shown in Figure 4-1 (Schultz, 1978).

These results were later reviewed (Finegold et al., 1994), and the original findings were updated with results of more recent social surveys, bringing the number of data points used in defining the relationship to more than 400. The findings of the new study differ only slightly from those of the original study, as shown in Figure 4-1. Predictions indicate that less than 15 to 20 percent of the population would be annoyed by L_{dn} values lower than 65 dBA, whereas more than 37 percent of the population would be annoyed by L_{dn} values greater than 75 dBA.

The Federal Interagency Committee on Urban Noise (FICUN) has suggested land use compatibility guidelines with respect to noise (FICUN, 1980). For residential land uses, they describe areas above L_{dn} 55 but below L_{dn} 65 to have moderate exposure but to be compatible for residential land uses.

As noted earlier, however, the level of sound is not the only factor that must be considered in Juneau's noise environment. The duration of the sound, expressed in the Time Above metric, is also a factor and leads to annoyance levels reported in Juneau that are higher than suggested by Figure 4-1.

Figure 4-1. Public Annoyance versus L_{dn}



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Residents polled in the 1998 McDowell Group survey were asked the following: “In terms of any impact on the community, which of the following tourist activities do you feel could expand, should be maintained at current levels, or should be reduced. . . .”

For the category of helicopter flightseeing, 49 percent said “maintained at current level,” while 32 percent said “should be reduced,” and 13 percent said “could expand” (McDowell Group, 1998). Much of the sentiment for reducing helicopter flights is due to the associated noise.

Many CBJ residents have expressed growing frustration with the amount and duration of helicopter noise in the community. In public meetings and written comments, individuals have objected to the noise, observing that noise has social impacts on the community; that noise hinders learning and interferes with sleep, work, convalescence, and communication; that noise is extremely annoying; and that noise destroys family time. Others note the noise disturbance in particular neighborhoods, such as North Douglas, Twin Lakes, the Mendenhall Peninsula, and Auke Bay.

As is the case in most communities, the residents of Juneau are not unanimous in their views about noise. As part of its effort to develop a tourism management plan for Juneau, the CBJ has conducted polls to determine public attitudes toward various aspects of the tourism industry (CBJ, 2001). The results of these polls help to characterize both the magnitude of the problem and the differences of opinion that exist in the community. Among other results, the polls indicate the following:

Noise is a serious problem for many residents:

- 45 percent of adult respondents have a friend or family member who is bothered substantially by helicopter flightseeing noise
- 43 percent of adult respondents indicated that the helicopter flightseeing noise issue is very important to them
- 60 percent of adult respondents said that the tourism plan’s management objective regarding helicopter flightseeing noise should be to eliminate it (8 percent), reduce it substantially (30 percent), or reduce it somewhat (22 percent)
- 30 percent of adult respondents listed reducing flightseeing noise as one of their three most important goals related to tourism management

Noise is not a serious problem for many residents:

- 43 percent of adult respondents do not have a friend or family member who is bothered substantially by helicopter flightseeing noise
- 40 percent of adult respondents listed reducing flightseeing noise as one of their three least important goals related to tourism management

These statistics portray a community that has very diverse opinions on the issue of noise and the significance of its effects.

Many residents have expressed concern that flightseeing noise may have a negative economic effect on local businesses. Helicopter noise may discourage visitors from staying at local lodgings or patronizing local shops, for example, or may interfere with conversations associated with business transactions. Noise may also discourage participation in non-motorized tours because guides are unable to promise quiet and solitude. No data are currently available to document that revenue loss has occurred because of these factors or to quantify the amount of revenue that may have been lost.

One additional impact on residents that has been mentioned in the community is the possible effect of noise on property values. This impact has been estimated in other areas, such as Los Angeles, where a study found that the premium paid for comparable, moderate value homes in a quiet environment was 13.2 percent (Hart, 2001). This effect has not been documented in Juneau, however, and would be difficult to ascertain given the pervasiveness of the noise. In September 2001, the Forest Service queried local real estate agents about the effects of flightseeing noise on property values and marketability. Some agents have experienced difficulty selling homes in the immediate vicinity of helicopter bases, but none reported a general decline in property values. In general, noise does not appear to have affected housing values in Juneau, but noise has had a negative effect on the value and marketability of specific properties. The possible effect of flightseeing-related noise on local property values has not been evaluated in this EIS, both because of the difficulty in measuring any such effect and the difficulty of differentiating the effect among alternatives.

Changes associated with Alternative A, the No-Action Alternative, cannot be modeled accurately because flightseeing without landing would likely be substituted for some previous landing tours. Alternatives B through H would permit various levels of commercial landing tours on the Juneau Icefield. Each alternative is described below in terms of the number of landings, days and hours of operation, and noise generated. Because permits for individual helicopter companies will be awarded through a prospectus and bid process following this decision, it is not possible to accurately predict the number of helicopter flights over specific populated areas. See Appendix D for a discussion of the prospectus and bid process and examples of evaluation criteria that could be used to allocate landings among the landing tour companies.

Alternative A— No Action

Under Alternative A, special use permits to land helicopters on the Juneau Icefield would not be issued to the helicopter glacier tour companies. Flightseeing tours (helicopter tours that do not land on NFS land) are outside the jurisdiction of the Forest Service and would probably continue, even though no landings were authorized.

Despite the anticipated growth of flightseeing tours, due to an increase in the number of cruise ship passengers, non-landing tours remain a very small part of the flightseeing business. In 2001, the companies that offered landing tours conducted approximately 45 to 50 non-landing flights. Estimates from other companies that may offer flightseeing-only flights are not available. The increasing number of cruise ship passengers has and will continue to have a cumulative effect on area residents, recreation, and wildlife as they are exposed to the noise of flightseeing aircraft.

The Forest Service cannot predict whether helicopter companies would fly the same number of trips, or more, or fewer trips that would not land. Conceivably, there would be a greater demand for fixed-wing flightseeing tours should Alternative A be selected. The consumer cost of a helicopter flightseeing tour is greater than a fixed-wing tour. If the helicopter tour were not allowed to land on the icefield, apparently a very special feature of the tour, then the helicopter tour may not be as attractive to consumers, and they might opt for the less expensive fixed-wing flightseeing tour. No quantitative estimate can be made on how much change there would be in helicopter and fixed-wing flights and where any increased fixed-wing tours would occur. Thus, noise associated with tours could decline, remain the same, or even increase under this alternative.

This alternative would likely lead to a loss of revenue, and a reduction in employment, for the helicopter tour companies. The current estimate of gross revenue associated with the landing tours is \$13 to \$26 million annually. It is not possible to predict how much that would decline. Other local outfitters could experience an increase in business activity as potential helicopter tour clients look for other recreation opportunities. It is not possible

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to predict the size of such an increase, although it would likely be smaller than the decrease in helicopter landing tour revenue.

This alternative would also lead to eliminating the participatory activities associated with the icefield landing tours, including but not limited to dogsled mushing and glacier trekking. Not only would the public lose the dogsled mushing and glacier hiking/trekking/walking opportunities, there would be a loss of employment opportunities for approximately 100 individuals⁴ who perform and support these outfitter-guided activities related to the commercial helicopter landing tours. Businesses supplying goods and services to support these activities, such as food suppliers for employees and dogsled camps, would lose revenue.

The Forest Service would lose its current revenue of approximately \$300,000 annually, based on the 2001 season.

Alternative B— Reduce Icefield Landings to the 1994 Actual Use Level

Alternative B would reduce the number of landings authorized. With respect to effects on residents, the following elements of Alternative B are relevant:

- It would permit approximately 38 percent fewer landings than the 1999 authorized level, reducing the number to the 1994 actual use level. By 2007, 11,881 landings would take place, 7,158 fewer landings than the 19,039 authorized in 1999 (see Table 2-2).
- The average number of landings per day would drop from 163 in 2003 to 112 by 2007, or from 17.2 per hour in 2003 to 11.8 per hour in 2007, a decline of 5.4 landings per hour.
- It would permit landings between 8:30 a.m. and 6:00 p.m. This is the shortest operating day of any of the alternatives.
- It would not allow landings on weekends or on Memorial Day, Independence Day, or Labor Day. This is the least number of operating days per season of all the alternatives.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.
- No new landing areas would be added to the permits, and flight paths would remain similar to current flight paths. The number of days in the season would decline to 106 days (between May 1 and September 30), a decrease of 47 days of icefield landing activity compared to 1999 (153 days, from May 15 through September 15). To allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.

This means there would be quieter weekends and holidays for residents. The helicopter companies could opt for overflights on any days, however, and the Forest Service has no authority to regulate such activities. The current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue.

This alternative allows the fewest landings of all action alternatives and, by limiting the landing days, suggests that weekends and holidays would be quieter than currently. As shown in Table 4-1, the combination of fewer landings, fewer days, and fewer hours per day of operation leads to more average landings per hour (11.8) under Alternative B in 2007 than the average of authorized landings in 1999 (10.8 per hour) and more than

⁴ This figure is an estimate based on Forest Service review of special use permit operating plans for the activities occurring in 2000.

actually occurred in 1999 (9.5 per hour). The decibel level would increase very slightly (0.9 dB) compared to the 1999 actual level.

As noted earlier, it is uncertain whether most people would notice this slight increase in the noise level during the week. The chief benefit for residents under Alternative B would be that the noise associated with helicopter landing tours would not be present on weekends and holidays or during evening hours after 6:00 p.m.

Alternative C— Limit Icefield Landings to the 1999 Actual Use Level

Alternative C would hold the authorized number of landings at the 1999 actual use level of 16,706. The following additional features of this alternative are relevant to residents:

- It would permit landings between 8:30 a.m. and 8:00 p.m., resulting in an average of 11.4 flights per hour.
- It would not allow landings on Sundays or on Memorial Day, Independence Day, or Labor Day.
- The average number of landings per day (128) would increase 3 percent compared to landings authorized in 1999 (19,039 per year; 124 per day) and would increase 17 percent compared to actual landings in 1999 (16,706 per year; 109 per day). As noted above, to allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.

Under this alternative, no new areas would be added to the permits, and flight paths would remain similar to current flight paths. With Sundays and holidays eliminated from the schedule, the number of landing days in the season would be reduced to 128, compared to the full 153-day season, and the average landings per day would increase to 131 (see Table 4-1). Sundays and holidays would be quieter than currently. The helicopter companies could, however, opt for overflights on any days and during the evening hours, and the Forest Service has no authority to regulate such activities. The current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue.

Table 4-1 illustrates that the noise level would, on average, be 0.8 dB higher than the noise level associated with the actual number of landings in 1999. It is unlikely that most people would be able to detect that change. The chief benefit of Alternative C for residents would be that the noise associated with helicopter landing tours would not be present on Sundays and holidays.

Alternative D— Limit Icefield Landings to the 1999 Authorized Use Level

Alternative D would hold the number of landings at the currently authorized level of 19,039 with limited new locations and new day restrictions. The following additional features of this alternative are relevant to residents:

- 19,039 landings would be authorized per season, the same number as authorized in 1999. If all authorized landings were used, however, there could be 2,333 more actual landings per season than in 1999.
- If fully used, the average number of landings per day would equal 149, an increase of 40 landings per day compared to actual landings in 1999 (109) and an increase of 25 landings per day compared to the number authorized in 1999 (124). As noted previously, to allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.

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- It would permit landings between 8:30 a.m. and 8:00 p.m., resulting in an average of 13.0 landings per hour.
- It would allow landings Monday through Saturday in existing areas and Monday through Friday in new areas north to the Haines/Juneau Borough line.
- It would not allow landings on Sunday or on Memorial Day, Independence Day, or Labor Day in currently used areas, and it would not allow landings on Saturday, Sunday, or holidays in new areas.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.

Under this alternative, the new area north of Gilkey Glacier would be added to the permits, and more flights could be expected along existing flight paths toward the north. The upper Bucher Glacier would be the only new area authorized for landings because no-landing buffers around wildlife habitat would preclude landings at any other sites in the area (see Figure 2-4). The number of days that landings would be authorized (149 days between May 1 and September 30) would be 4 days (3 percent) less than during the comparable period in 1999. The current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue. The amount of noise exposure for residents along the north routes could increase slightly during the week due to flights to upper Bucher Glacier.

With an average of 13.0 landings per hour, compared to the average 9.5 landings per hour associated with the 1999 actual landings, there would be an increase in the overall noise level during operating hours under Alternative D. Table 4-1 indicates that the noise level would increase by 1.4 dB, compared to the 1999 actual use.

As noted earlier, it is uncertain whether most people would find this slight increase in the noise level during the week noticeable or objectionable. The benefit of Alternative D for most residents would be that the noise associated with helicopter landing tours would not be present on Sundays and holidays.

Alternative E— Proposed Action

This alternative would hold the number of landings at the currently authorized level of 19,039, and helicopters could land 7 days a week. The following additional features are relevant to residents:

- 19,039 landings would be authorized, the same number as authorized in 1999, but if all authorized landings were used it would equal an increase of 2,333 landings compared to actual landings in 1999 (16,706).
- The average of 124 landings per day would be equal to that authorized in 1999, and would be 14 percent more than the actual average number of landings per day in 1999 (109). As noted previously, to allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.
- It would permit landings between 8:30 a.m. and 8:00 p.m., the same as currently. This would result in an average of 10.8 landings per hour, approximately 14 percent more landings per hour than the average associated with actual landings in 1999 (9.5).
- It would allow landings 7 days per week, including holidays, in current areas and Monday through Friday in new areas.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.

Under this alternative, new areas would be added to the permits, including the lake at Antler Glacier and other areas north to the Juneau/Haines Borough line. The number of days in the season would equal 153. The amount of noise residents would experience would change to the extent that additional flights to the new areas north of Juneau would occur Monday through Friday, with an associated decrease in flights to other areas. The extent of this shift is not known. There would be slightly fewer flights per hour than under Alternatives B, C, and D, but they would run 7 days a week. The current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue.

As shown on Table 4-1, the noise level under Alternative E would be equal to the level associated with authorized operations in 1999, and 0.6 dB higher than the noise level associated with the actual number of landings that occurred in 1999. As noted earlier, this slight increase in the noise level might not be noticeable to most people.

Alternative F— Increase Authorized Icefield Landings 5 Percent Annually, with New Locations

Alternative F would increase annual authorized landings 5 percent per year through 2007, and helicopters could land 7 days a week. The following additional features could affect residents:

- The number of authorized landings would increase from 19,991 in 2003 to 24,229 in 2007, an increase of 7,523 landings per season, compared to the actual number of landings in 1999 (16,706).
- The average number of landings per day would increase from 131 in 2003 to 158 in 2007, an added 49 landings per day compared to actual landings in 1999 (109) and 34 more than authorized in 1999 (124). As noted above, to allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.
- It would permit landings between 8:30 a.m. and 8:00 p.m., resulting in an average of 13.7 landings per hour by 2007, a 45 percent increase over the average number of actual landings per hour in 1999 (9.5).
- It would allow landings 7 days per week in both current and new areas.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.

Under this alternative, several new areas north and east of Juneau, including Eagle Glacier and Death Valley, would be added to the permits. Residents would experience increased noise associated with more landings per hour and more days per week than under any other alternative, except Alternative G. The current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue.

Table 4-1 indicates that the noise to which residents are exposed would increase by 1.6 dB compared to the noise level associated with the number of actual landings in 1999. Although this increase may not be noticeable to most people, it is likely to be objectionable to those who are already exposed to more noise and more overflights than they desire.

Alternative G— Increase Authorized Icefield Landings 10 Percent Annually, with New Locations

Alternative G would increase the number of authorized landings by 10 percent per year, totaling 30,662 by 2007. Helicopters could land 7 days a week. This alternative is intended to respond to the helicopter companies' requests for additional landings and new areas. The following additional features are of interest to residents:

- The number of authorized landings would increase from 20,943 in 2003 to 30,662 in 2007, a total increase of 13,956 landings compared to the actual

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number of landings in 1999 (16,706). The total increase would be approximately 84 percent from 1999 to 2007.

- The average number of landings per day would increase from 139, or 12.1 landings per hour, in 2003 to 200 landings per day in 2007, or 17.4 landings per hour.
- It would permit landings between 8:30 a.m. and 8:00 p.m.
- It would allow landings 7 days a week in both current and new areas.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.

Under this alternative, several new areas north and east of Juneau would be added to the permits. The number of days in the season would equal 153 days. Under this alternative, residents would experience more noise because there would be more landings in total and more landings per hour than under any other alternative. Also, the current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue. Average landings per day would increase to 200 in 2007, or approximately 83 percent more landings per day than the average actual landings that occurred in 1999 (109). As noted previously, to allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.

Table 4-1 illustrates that the noise to which residents are exposed under Alternative G would increase by 2.6 dB compared to the noise level associated with the number of actual landings in 1999. This level of increase could be noticeable to some people and is likely to be objectionable to those who are already exposed to more noise and more overflights than they desire.

Alternative H— Preferred Alternative

This alternative would hold the number of landings at the currently authorized level of 19,039 in 2003 and 2004 and would increase authorized landings 5 percent per year from 2005 through 2007 (22,040 landings). Helicopters could land 7 days a week. The following additional features are relevant to residents:

- The number of authorized landings would increase from 19,039 in 2003 to 22,040 in 2007, an increase of 3,334 landings per season, compared to the actual number of landings in 1999 (16,706).
- If a satellite heliport site(s) is developed before the 2007 season, the number of authorized landings may be re-evaluated.
- The average number of landings per day would increase from 124 in 2003 to 144 in 2007, an added 35 landings per day compared to actual landings in 1999 (109) and 20 more than authorized in 1999 (124). As noted above, to allow a meaningful comparison between values for 1999 and values for this alternative, calculations of average landings per day in 1999 are based on a season length of 153 days.
- It would permit landings between 8:30 a.m. and 8:00 p.m., the same as currently.
- The average number of landings per hour would increase from 10.8 in 2003 to 12.5 in 2007, approximately 32 percent more landings per hour than the average associated with actual landings in 1999 (9.5).
- It would allow landings 7 days per week in both current and new areas.
- Flight path restrictions would remain the same as now, but could incorporate possible new mitigations identified through a mediation process or other agreements.

Under this alternative, landing sites in Death Valley would be added to the permits. The number of days in the season would equal 153. The amount of noise residents would

experience would change to the extent that additional flights along the eastern routes to Death Valley would occur 7 days per week, with the potential for an associated decrease in flights to other areas. The extent of this shift is not known. The current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue.

Table 4-1 indicates that the noise to which residents are exposed would increase by 1.2 dB compared to the noise level associated with the number of actual landings in 1999. Although this increase may not be noticeable to most people, it is likely to be objectionable to those who are already exposed to more noise and more overflights than they desire.

Environmental Consequences for Recreationists

Introduction

Recreation activities potentially affected by helicopter noise include camping, hiking, viewing scenery and wildlife, bicycling, jogging, picnicking, kayaking, horseback riding, fishing, hunting, off-road vehicle use, and snowmobile use. The noise studies cited in Chapter 3 included sites on hiking trails in the icefield area. Areas potentially affected include the following recreation trails and places where helicopter noise may affect recreationists (see Figure 2-3):

- North area from Auke Mountain to the northern end of the Juneau Icefield study area
 - Auke Nu Trail
 - Spaulding Meadows Trail
 - Mount McGinnis Path
 - Peterson Lake Trail
 - Eagle River
 - Herbert Glacier Trail
 - Windfall Lake Trail
 - Point Bridget Trail
 - Yankee Basin
- Valley area
 - West Glacier Trail
 - Trail of the Glacier
 - East Glacier Trail
 - Steep Creek Trail
 - Moraine Ecology Trail
 - Dredge Lake Area Trails
 - Nugget Creek Trail
 - Heintzleman Ridge Trail
 - Montana Creek Trail
 - MGRA (including Mendenhall Glacier Visitor Center and Skater's Cabin)
 - Steep Creek Area
 - Mount McGinnis
- South area
 - Point Bishop Trail
 - Lemon Creek Trail
 - Salmon Creek Road and Trail
 - Granite Creek Trail
 - Blackerby Ridge
 - Perseverance Trail
 - Sheep Creek Trail

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- Treadwell Ditch Trail
 - Dan Moeller Trail
 - Mt. Juneau Trail
 - Mt. Bradley (Mt. Jumbo) Route
- New areas
 - No formal trails in new areas, but many recreationists use the Berners Bay area

On the other hand, limitations on the number of landings or timing restrictions would limit the recreational opportunities for people, primarily tourists, who would like to participate in activities requiring helicopters for access. A 1999 survey of helicopter icefield tour customers found that custom tours involving the most time and activity on the icefield ranked significantly higher in satisfaction than the standard landing tours (McDowell Group, 1999).

How Noise Effects on Recreationists are Estimated

The NPS has studied noise effects on recreationists, particularly with respect to flightseeing noise at Grand Canyon National Park. Unlike the aircraft noise studies of residents in populated areas, which focus on annoyance associated with aircraft noise, the NPS maintains that the appropriate measure of noise impacts in the national parks is the amount of interference with the enjoyment of natural quiet (Michael Baker et al., 2001), based on the assumption that recreationists expect parks and wilderness areas to be quieter than populated areas.

Although the mandate of the NPS is different than that of the Forest Service, some of the research and findings concerning aircraft overflights may be applicable to recreational areas on Forest Service lands. In an NPS report to Congress, the NPS attempted to correlate the percent of visitors experiencing moderate to extreme annoyance due to aircraft noise with the percent of time aircraft are audible and with hourly A-weighted aircraft noise exposure levels (doses) (NPS, 1994). Two recreational opportunities were considered, defined by the short hike and the overlook experience.

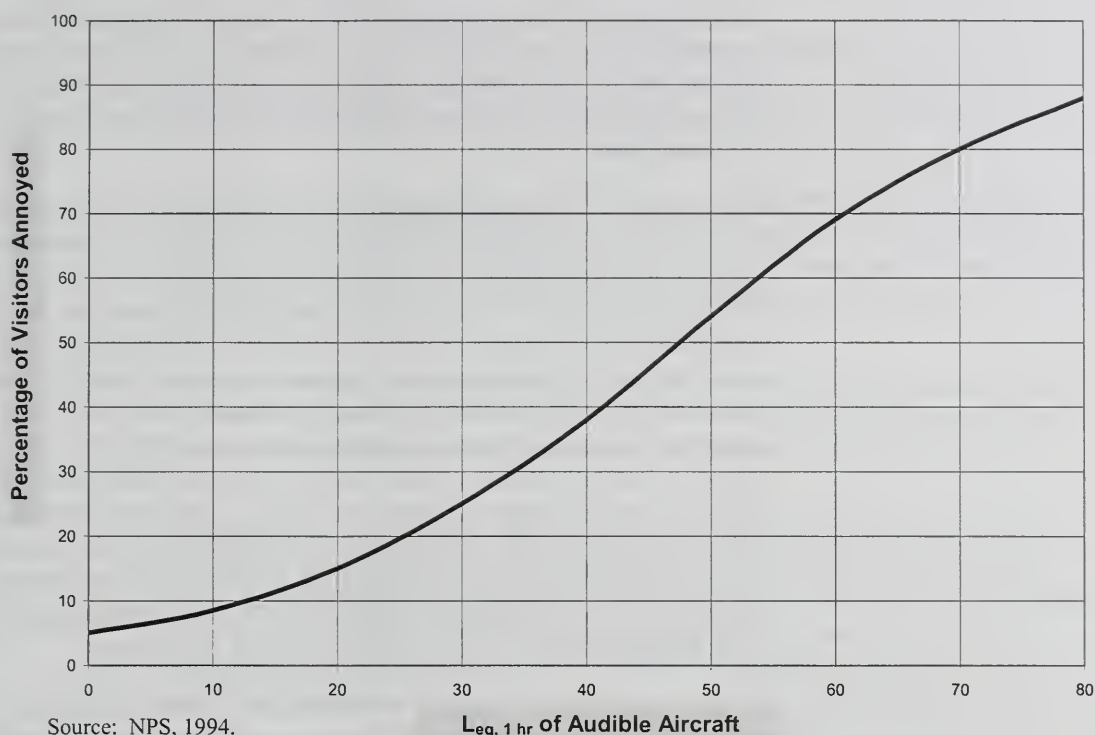
Two aspects were found to be important: the time aircraft are audible or noticeable and the dose (or loudness) of audible aircraft. Based on their research, the NPS published the dose-response curve shown in Figure 4-2. This dose-response curve is similar to the curve for residents shown in Figure 4-1, except that more recreationists are predicted to be annoyed at each noise level. For example, at 75 dB, approximately 37 percent of residents are expected to be annoyed (see Figure 4-1), while 85 percent of recreationists are expected to be annoyed (see Figure 4-2).

The NPS study was based on visitors to the Grand Canyon, and the applicability to recreationists on NFS land has not been established. Research is currently underway to refine this curve to address situations when the aircraft and the background noise levels are very similar. This may explain why the dose-response curve never results in zero percent annoyed (Acentech, 1999).

This dose-response curve can be used to provide a conservative estimate of the population of recreationists annoyed based on dose levels. Dose may be easily calculated from information on aircraft type or noise emission, number of flights per hour, location of flight corridor, altitudes of aircraft, and the terrain.

No surveys have been made of recreationists in the Juneau area to determine whether the dose-response curve in Figure 4-2 is representative of local recreationists. Forest Service trailhead logs do include some noise complaints from trail users. Additionally, a non-scientific survey conducted by a group of citizens in 1999 showed a high level of

Figure 4-2. Percent of Recreationists Annoyed



dissatisfaction with the level of noise (Obermeyer, 1999). Sixty-nine individuals, primarily trail users, responded to the survey. Most respondents found the helicopter traffic very bothersome to their hiking experience. In general, insofar as the dose-response curve is indicative of local recreationists, the louder the noise and the longer it is audible, the more recreationists on the ground will be annoyed. The point at which people decide to recreate elsewhere due to noise and disruption of wildlife depends not only on the noise level but also on the individual tolerance level and the availability of substitute recreational sites.

Noise Effects by Alternative

Each alternative is discussed below in terms of its effects on recreationists.

Alternative A—No Action

Under this alternative, special use permits to land helicopters on the Juneau Icefield would not be issued to the helicopter glacier tour companies. Flightseeing-only tours (helicopter tours that do not land on NFS land) are outside the jurisdiction of the Forest Service and would probably continue, even if no landings were authorized. No new landing locations would be added, no motorized vehicle permits would be issued, and no expansion areas would be permitted.

The Forest Service cannot predict whether the helicopter companies would fly the same number of trips, more trips, or fewer trips that would not land; thus, the noise associated with flights could decline, remain the same, or even increase under Alternative A. The consumer cost of a helicopter flightseeing tour is, however, greater than a fixed-wing tour. If the helicopter tours were not allowed to land on the icefield, apparently a very special feature of the tour, then the helicopter tours might not be as attractive to the consumer. More consumers might opt for the less expensive fixed-wing flightseeing tour, which would decrease the helicopter noise but increase the noise associated with fixed-wing aircraft.

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The loss of commercial landings on the icefield would have differing effects on different groups of recreationists. First, cruise ship passengers and others would no longer have the opportunity to take a commercial tour to land on the icefield and enjoy that experience, nor would they be able to participate in the related icefield activities, such as trekking and dogsled mushing. These commercial tour opportunities would be eliminated by Alternative A; however, non-outfitter-guided helicopter access to the icefield would still be available.

With the loss of commercial landings, hikers and other recreationists on the ground might be exposed to less helicopter noise (but possibly more fixed-wing aircraft noise) than they currently experience. On the other hand, Forest Service restrictions on helicopter landing tour flight parameters, which have allowed wildlife to adapt to the helicopter activities in the region, would not apply to this alternative. The possibility, therefore, exists that there would be lower flying helicopters that would in turn be more disruptive to wildlife and recreationists on the ground. Potentially, recreationists would have a less desirable experience because of increased noise, disrupted wildlife viewing or hunting, and potential visual disruption of vistas caused by lower flying helicopters. Because of the number of unpredictable variables, the change in the noise environment cannot be predicted and, therefore, the response of recreationists on the ground is also uncertain. Given the growing use of local trails (see Table 3-1) and the limited number of options available to local recreationists, a change in the noise environment along trails is not likely to cause hikers to use trails less than they do currently.

Overall, recreationists would have fewer options or less influence on outcomes under Alternative A because the Forest Service would not be able to control helicopter tour flight parameters.

The standards and guidelines for recreation and tourism guide the Forest Service to work with recreation service partners and the tourism industry to provide services and opportunities that supplement the use and enjoyment of the national forests by a variety of people, and to authorize commercial recreational developments and services where there is a public need. Based on historical use figures and the increasing demand for access to the Tongass National Forest's Juneau Icefield, Alternative A is not consistent with the management prescriptions for the three affected LUDs—Remote Recreation, Semi-Remote Recreation, and LUD II—nor is it consistent with the standards and guidelines for recreation and tourism (see Appendix B).

Alternative B—Reduce Icefield Landings to 1994 Actual Use Level

This alternative would decrease the current amount of noise exposure experienced by area recreationists below that of any other action alternative. As noted earlier, there would be fewer total landing days per season (106), fewer total landings per season (11,881 by 2007), and fewer average landings per day (112 by 2007) than any of the other action alternatives, and fewer landings than authorized in the 1999 season. There would, however, be more landings per hour (11.8 per hour by 2007) than actually occurred in 1999 (9.5 per hour). Like the effects on residents, these changes would affect recreationists by exposing them to slightly more noise during operating hours throughout the season, but no noise associated with helicopter landing tours would occur on weekends and holidays.

It is uncertain whether most people would notice the slight increase in the noise level during the week. The chief benefit for recreationists under Alternative B would be that the noise associated with helicopter landing tours would not be present on weekends and holidays. However, it is likely that at least some helicopter landing tours would be replaced by helicopter tours that do not land or by fixed-wing aircraft tours on the weekends and holidays.

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The following effects on recreationists and recreational activities can be anticipated under Alternative B:

- With the elimination of holiday/weekend landings, recreationists arriving by cruise ship on those days would not have the opportunity to participate in an icefield landing and associated activities. They would, however, be able to participate in helicopter or fixed-wing overflights of the icefield.
- Experiences of recreationists participating in the helicopter tours on weekdays would be somewhat affected by the Forest Service buffer zones around wildlife habitat and trail ends. These recreationists would be viewing wildlife and vistas from a greater distance, but would still have the opportunity to land on the icefield.
- No minor developments for motorized snow vehicles would be allowed. Noise associated with motorized snow vehicle use on the icefield would not occur and there would continue to be no opportunities for guided snow vehicle tours on the icefield.
- With respect to recreationists on the ground, the trail end buffer zones on West Glacier and Herbert Glacier trails would benefit recreationists by creating less noise and less disruption of recreational activities than occurs without the buffer zones (see Figure 2-3). If wildlife are less disturbed, the quality of wildlife viewing and hunting experiences may improve. Additionally, elimination of noise from helicopter landing tours on holidays and weekends would provide recreationists on the ground with an opportunity to experience some natural quiet periods.
- No expanded landing areas would be permitted; therefore, the effects associated with helicopter tour landings would not expand beyond the current boundaries even as recreational demand increases.
- No changes in policy would occur in the recreational environments of the Haines/Juneau Borough line area, Eagle Glacier, Death Valley, Berners Bay, or Antler Glacier Lake and Antler Glacier. The number of landing areas and flights would remain the same, therefore recreationists would not experience new impacts in these areas.

Alternative C—Limit Icefield Landings to 1999 Actual Use Level

This alternative would hold the authorized number of landings at the 1999 actual use level of 16,706; therefore, the amount of noise would be very close to that experienced by recreationists during the 1999 season. As noted earlier, the number of landing days in the season would decrease slightly (from 153 to 128), and the average number of landings per day (131) would be slightly more than the current authorized number (124).

The chief benefit for recreationists under Alternative C would be that the noise associated with helicopter landing tours would not be present on Sundays and holidays. It is uncertain whether the helicopter landing tours would be replaced by helicopter tours that do not land or by fixed-wing aircraft tours. Overall, the effect on recreationists on the ground is likely to be negligible during the week.

The following effects on recreationists and recreational activities can be anticipated under Alternative C:

- With the elimination of Sunday/weekend landings, recreationists arriving by cruise ship on those days would not have the opportunity to participate in an

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icefield landing and associated activities. They would, however, be able to participate in helicopter or fixed-wing overflights of the icefield.

- Experiences of recreationists participating in the helicopter tours on weekdays and Saturdays would be somewhat affected by the Forest Service buffer zones around wildlife habitat and trail ends. These recreationists would be viewing wildlife and vistas from a greater distance, but would still have the opportunity to land on the icefield.
- With respect to recreationists on the ground, the trail end buffer zones on West Glacier and Herbert Glacier trails would benefit recreationists by creating less noise and less disruption of recreational activities than occurs without the buffer zones (see Figure 2-3). If wildlife are less disturbed, the quality of wildlife viewing and hunting experiences may improve. Additionally, elimination of noise from helicopter landing tours on holidays and weekends would provide recreationists on the ground with an opportunity to experience some natural quiet periods.
- No minor developments for motorized snow vehicles would be allowed, so that noise associated with snow vehicle use would not be added to the existing icefield environment. There would continue to be no opportunities for guided motorized snow vehicle tours on the icefield.
- No expanded landing areas would be permitted; therefore, the effects associated with helicopter tour landings would not expand beyond the current boundaries even as recreational demand increases.
- No changes in policy would occur in the recreational environments of the Haines/Juneau Borough line area, Eagle Glacier, Death Valley, Berners Bay, or Antler Glacier Lake and Antler Glacier. The number of landing areas and flights would remain the same, therefore recreationists on the ground would not experience new impacts in these areas.

Alternative D—Limit Icefield Landings to 1999 Authorized Use Level

This alternative would hold the number of landings at the currently authorized level of 19,039, with limited new locations and day restrictions. As noted earlier, the number of days per season (128 days between May 1 and September 30) would be slightly less than the number associated with the same period in prior years. Average landings per day would be higher (149) than Alternative E (124), providing more access overall to those seeking helicopter landing tours. Elimination of noise from helicopter landing tours on holidays and Sundays would provide recreationists on the ground with an opportunity to experience natural quiet. Overall, the effect on recreationists on the ground is likely to be negligible during the week.

The following effects on recreationists and recreational activities can be anticipated under Alternative D:

- There would be no helicopter landings on the icefield on Sundays and holidays in areas where landings currently occur, so recreationists would not be exposed to the associated noise on those days. With the elimination of Sunday/weekend landings, recreationists arriving by cruise ship on those days would not have the opportunity to participate in an icefield landing and associated activities in the current area. They would, however, be able to participate in helicopter or fixed-wing overflights of the icefield in the current area and would have access to landing tours on Saturdays.
- With respect to recreationists on the ground, the trail end buffer zones on West Glacier and Herbert Glacier trails would benefit recreationists by creating less

noise and less disruption of recreational activities than occurs without the buffer zones (see Figure 2-3). If wildlife are less disturbed, the quality of wildlife viewing and hunting experiences may improve.

- Minor developments for motorized snow vehicles would be allowed in semi-remote recreation areas, but not in remote recreation areas (see Figure 1-4). Recreationists would be exposed to the noise of motorized snow vehicles in semi-remote recreation areas. The specific locations would be considered on a case-by-case basis, using the Semi-primitive Motorized ROS as guidance, in relation to the proposed scale of development and other possible activities in the vicinity. The allowance of motorized vehicles in semi-remote areas would provide a new activity for helicopter landing tour passengers to participate in, thus supporting more diverse uses of the area. Recreationists would, however, be exposed to the noise of motorized snow vehicles in semi-remote recreation areas. It is likely that those recreationists seeking natural quiet (e.g., hikers, hunters, and anglers) would be pushed into the more remote areas to experience quiet.
- No changes would occur in the recreational environments of Eagle Glacier and Death Valley, where no helicopter landings are currently allowed. By providing areas where no helicopter landings take place, recreationists on the ground would still be able to find naturally quiet areas.
- Expanded landing areas would be added, including Antler Glacier and other areas north to the Haines/Juneau Borough line. Expanded landing areas would result in less concentration of helicopter landings, thereby increasing opportunities for helicopter passengers while geographically spreading the noise exposure for recreationists on the ground. This aspect of Alternative D decreases the area available to those seeking natural quiet.
- Under this alternative, new landing areas north of Gilkey Glacier would be permitted for use Monday through Friday. More people would have access to helicopter tours in more remote areas. Recreationists on the ground would lose areas of natural quiet during the week, however.
- Recreationists hiking or boating in the Berners Bay, Antler Glacier, Antler River, Gilkey River, Lace River and other areas north to the Haines/Juneau Borough line, as well as cabin users at Berners Bay, would be exposed to the additional noise of helicopter overflights and remote landings on weekdays, but Sundays and holidays would be the same as under existing conditions. The helicopter companies could also opt for overflights without landings on any days, and the Forest Service has no authority to regulate such activities.

The relatively restrictive wildlife buffers in this new area would limit the potential for tour growth to landing sites at a remote area on the upper Bucher Glacier, which would affect any other recreationists in the area.

Alternative E—Proposed Action

This alternative would hold the number of landings at the current authorized level (19,039), and helicopter landings would continue to be allowed 7 days a week. As noted earlier, new landings in areas north of Gilkey Glacier would be permitted. Although the total number of landings per year would be the same as under Alternative D, the average number of landings per day under Alternative E would be reduced, compared to Alternative D, because Alternative E would allow landings 7 days a week (the same as currently). For both helicopter tour passengers and on-the-ground recreationists, this alternative is most like the current situation, except for the expansion into Berners Bay and areas north to the Haines/Juneau Borough line.

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The following effects on recreationists and recreational activities could be anticipated under Alternative E:

- Recreationists arriving by cruise ship any day of the week would have the opportunity to participate in an icefield landing and associated activities.
- Compared to current experiences, the experiences of recreationists participating in the helicopter tours would be somewhat affected by the Forest Service buffer zones around wildlife habitat and trail ends. These recreationists would be viewing wildlife and vistas from a greater distance, but would still have the opportunity to land on the icefield any day of the week.
- With respect to recreationists on the ground, the trail end buffer zones at West Glacier and Herbert Glacier trails would benefit recreationists by creating less noise and less disruption of recreational activities than occurs without the buffer zones (see Figure 2-3). If wildlife are less disturbed, the quality of wildlife viewing and hunting experiences could improve. There could be some disturbance to recreationists in the early part of season when tour companies would be allowed to land within the trail end buffer zones because of unsafe landing conditions further up the glacier.
- By allowing landings 7 days a week, the Proposed Action would not provide the opportunity for quiet weekends/holidays that would be afforded by Alternatives B, C, and D.
- Minor developments for motorized snow vehicles would be allowed in semi-remote recreation areas, but not in remote recreation areas (see Figure 1-4). Helicopter landing tour passengers would be able to participate in snow-machine tours on the icefield. However, other recreationists would be exposed to the noise of motorized snow vehicles in semi-remote recreation areas. This change would cause some recreationists on the ground to go elsewhere seeking natural quiet.
- Expanded landing areas would be added, including Antler Glacier and other areas north to the Haines/Juneau Borough line. More people would have access to helicopter tours to more remote areas. Recreationists on the ground would lose these areas of natural quiet during the week.
- No changes would occur in the recreational environments of Eagle Glacier and Death Valley, where no helicopter landings are currently allowed. By providing areas where no helicopter landings take place, recreationists on the ground would still be able to find naturally quiet areas.
- Helicopter tours to Antler Glacier Lake and other areas north to the Haines/Juneau Borough line would be allowed only during the weekdays, thus providing a quieter experience for other recreationists on weekends. The level of noise and the visual impact on recreationists north of Gilkey Glacier would, therefore, increase Monday through Friday based on the number of flights going into Berners Bay and other northern areas.

Alternative F—Increase Number of Landings 5 Percent Annually, with New Locations

This alternative would increase the number of authorized landings 5 percent per year, totaling 24,299 by 2007. Helicopters could land 7 days a week. As noted earlier, the number of days in the season would equal 153, and the average number of landings per day (158) would be higher than Alternative E (124). Under Alternative F, the chief benefit for recreationists on helicopter landing tours would be that more icefield landings would be permitted, therefore more people could participate. The impact to recreationists

on the ground, however, would be noise associated with helicopter landing tours that would be present 7 days per week, in both existing and new recreation areas.

The following effects on recreationists and recreational activities could be anticipated under Alternative F:

- With the allowance of more landings, more recreationists arriving by cruise ship would have the opportunity to participate in an icefield landing and associated activities. Current policy provides for icefield landings 7 days per week, and this opportunity would still be available. Given the popularity of the icefield activities, participation would likely grow over time.
- Compared to current conditions, experiences of recreationists participating in the helicopter tours would be somewhat affected by the Forest Service buffer zones around wildlife habitat and trail ends. These recreationists would be viewing wildlife and vistas from a greater distance, but would still have the opportunity to land on the icefield any day of the week.
- With respect to recreationists on the ground, the trail end buffer zones at West Glacier, Herbert Glacier, and Eagle Glacier trails would benefit recreationists by creating less noise and less disruption of recreational activities than occurs without the buffer zones (see Figure 2-3). If wildlife are less disturbed, the quality of wildlife viewing and hunting experiences could improve. There could be some disturbance to recreationists in the early part of season when tour companies would be allowed to land within the trail end buffer zones due to unsafe landing conditions further up the glacier.
- Wildlife buffers would protect recreationists on the ground from some noise, but there would be no time for recreationists who desire natural quiet to schedule around helicopter landing tours in the existing or new areas. Recreationists who desired this as part of their experience would be forced to go outside the area.
- Minor developments for motorized snow vehicles would be allowed in semi-remote recreation areas, but not in remote recreation areas (see Figure 1-4). Helicopter landing tour passengers would be able to participate in snow-machine tours on the icefield; however, other recreationists would be exposed to the noise of motorized snow vehicles in semi-remote recreation areas. This change would cause some recreationists on the ground to go elsewhere to seek natural quiet.
- Expanded landing areas would be added, including Eagle Glacier, Death Valley, Antler Glacier, and other areas north to the Haines/Juneau Borough line. More people would have access to helicopter tours, including tours to more remote areas. Recreationists on the ground would lose these areas of natural quiet on weekends/holidays (compared to Alternative E). Trail and waterway users near the flight paths would be exposed to more noise, thereby decreasing the areas available for natural quiet and thus affecting recreationists on the ground. Recreationists who required this as part of their experience would be forced to go outside the area.
- Under this alternative, some new areas north of Gilkey Glacier would be added to the permits, raising noise levels for recreationists on the ground using the areas north of the 1995 EIS study area. Recreationists on the ground would be adversely affected because of the decrease in availability of areas with natural quiet. Recreationists who desired this as part of their experience would be forced to go outside the area.

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Alternative G—Increase Authorized Icefield Landings 10 Percent Annually, with New Locations

This alternative would increase the number of authorized landings 10 percent per year, totaling 30,662 by 2007. Landings would be allowed 7 days a week. Under this alternative, several new areas north and east of Juneau would be added to the permits. The average number of landings per day would increase from 139 in 2003 to 200 in 2007. The chief benefit for recreationists under Alternative G would be that more people would have the opportunity to participate in the landings and associated icefield activities. The impact to recreationists on the ground would be more noise associated with more helicopter landing tours that would be present 7 days per week.

The following effects on recreationists and recreational activities could be anticipated under Alternative G:

- With the allowance of more landings, more recreationists arriving by cruise ship would have the opportunity to participate in an icefield landing and associated activities on any day. Current policy provides for icefield landings 7 days per week, and this opportunity would still be available. Given the popularity of the activity, participation would likely grow over time.
- Compared to current experiences, the experiences of recreationists participating in the helicopter tours would be somewhat affected by the Forest Service buffer zones around wildlife habitat. These recreationists would be viewing wildlife and vistas from a greater distance, but would still have the opportunity to land on the icefield any day of the week.
- Wildlife buffers would protect recreationists on the ground from some noise, but there would be no time for recreationists who desire natural quiet to schedule around helicopter landing tours in the existing or new areas. Recreationists who required this as part of their experience would be forced to go outside the area.
- Minor developments for motorized snow vehicles would be allowed in semi-remote and remote recreation areas (see Figure 1-4). Helicopter landing tour passengers would be able to participate in snow-machine tours on the icefield. Other recreationists, however, would be exposed to the noise of motorized snow vehicles in Semi-Remote and Remote Recreation areas. This change would cause some recreationists on the ground to seek other, quieter areas.
- Expanded landing areas would be added, including Eagle Glacier, Death Valley, Antler Glacier, and other areas north to the Haines/Juneau Borough line. Recreationists would, therefore, have access to helicopter tours to more remote areas. Recreationists on the ground would lose these areas of natural quiet on weekends/holidays (compared to Alternative E).
- The most frequently used flight paths would likely remain the same as now, but could incorporate possible new mitigation measures identified through the mediation process. With the same flight paths used, those on helicopter tours could encounter more helicopter traffic in the flight paths.

Alternative H—Preferred Alternative

This alternative would limit the number of landings to the currently authorized level of 19,039 in 2003 and 2004 and would increase authorized landings 5 percent per year from 2005 through 2007 (22,040 landings). Helicopters could land 7 days a week. As noted earlier, new landings at Death Valley would be permitted. The number of days in the season would equal 153 and the average number of landings per day (144) would be

higher than Alternative E (124), providing more access overall to those seeking helicopter landing tours. The impact to recreationists on the ground, however, would be noise associated with helicopter landing tours that would be present 7 days per week, in both existing and new recreation areas.

The following effects on recreationists and recreational activities could be anticipated under Alternative H:

- With the allowance of more landings, more recreationists arriving by cruise ship would have the opportunity to participate in an icefield landing and associated activities. Current policy provides for icefield landings 7 days per week, and this opportunity would still be available. Given the popularity of the icefield activities, participation would likely grow over time.
- Wildlife buffers would protect recreationists on the ground from some noise, but there would be no time for recreationists who desire natural quiet to schedule around helicopter landing tours in the existing or new areas. Recreationists who required this as part of their experience would be forced to go outside the area.
- By allowing landings 7 days a week, the Preferred Alternative would not provide the opportunity for quiet weekends/holidays that would be afforded by Alternatives B, C, and D.
- No minor developments for motorized snow vehicles would be allowed. Noise associated with motorized snow vehicle use on the icefield would not occur and there would continue to be no opportunities for guided snow vehicle tours on the icefield.
- Landing areas would be added at Death Valley. More people would have access to helicopter tours, including tours to more remote areas. Recreationists on the ground would lose this area of natural quiet 7 days per week. Trail and waterway users near the flight paths would be exposed to more noise, thereby decreasing the area available for natural quiet and thus affecting recreationists on the ground. Recreationists who required this as part of their experience would be forced to go outside the area.
- The most frequently used flight paths would likely remain the same as now, but could incorporate possible new mitigation measures identified through the mediation process. With the same flight paths used, those on helicopter tours could encounter more helicopter traffic in the flight paths.

Environmental Consequences for Wildlife

Introduction

Wildlife species considered for analysis for potential impacts of helicopter tour activities include MIS, threatened and endangered species (TES), and other species of concern. Potential impacts could occur to wildlife from noise or visual stimuli near flight routes or landing sites. Of the species considered for analysis, potential impacts could occur to black bear, brown bear, mountain goat, gray wolf, bald eagle, Steller sea lion, trumpeter swan, moose, or harbor seal in one of more of the alternatives. Individual red squirrels, marten, river otter, Sitka black-tailed deer, northern goshawks, Vancouver Canada geese, red-breasted sapsuckers, hairy woodpeckers, and brown creepers may be disturbed in some cases, but effects on populations will be negligible because flight routes that occur near the species' habitat generally are greater than 1,500 feet above ground level and the species' habitat does not occur near landing sites. Because of its year-round use of habitat near proposed flight routes and landing sites, the mountain goat has the greatest potential to be affected by helicopter tours. Based on the following analysis and Forest

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Plan direction, mitigation measures were developed to minimize the impacts of helicopter tours on wildlife.

Mountain goat populations are generally dispersed and of low density in Southeast Alaska. Subpopulations occupy relatively small patches of habitat. The small size and patchy distribution of groups create a higher potential for inbreeding or periodic local extinctions (Smith and Raedeke, 1982). These dynamics of goat populations were considered in assessing additional stresses to populations that may occur as a result of helicopter activity.

General Impacts of Aircraft Overflights on Wildlife

Physiology and Behavior Impacts

Aircraft overflights can affect the physiology and behavior of wildlife, and if the stress becomes chronic, can negatively affect an animal's fitness and long-term survival (NPS, 1994). Both sound and visual stimuli can cause stress. The manner and degree in which overflights influence wildlife depends on life history of the species, characteristics of the aircraft and flight activities, and other factors including habitat, season, activity at time of exposure, sex, age, health, and previous experience with aircraft (NPS, 1994). Forested habitat generally reduces noise and visual stimuli because trees provide cover and muffle sound. The relationship between overflights and impacts to wildlife is complex, but it is clear that the closer the aircraft, the more likely an animal will be stressed (Altmann, 1958; Berger et al., 1983; Krausmann and Hervert, 1983; Knight and Knight, 1984; Miller and Smith, 1985; Krausmann et al., 1986; Stockwell et al., 1991; Frid, 1998); helicopter overflights are more stressful than fixed-wing overflights (Interagency Grizzly Bear Committee, 1987; NPS, 1994; Wilson and Shackleton, 2001).

Studies have documented physiological and behavioral responses to helicopter overflights. Physiological responses, such as increased heart rate or stress hormone levels, have been demonstrated, but whether such responses lead to long-term harm is equivocal (McArthur et al., 1982; Stemp, 1983; Forest Service, 1992a; NPS, 1994; Weisenberger et al., 1996; Grubb and Bowerman, 1997; Frid, 1998, 1999; Brown et al., 1999).

Combined with other events such as nesting, nursing young, or harsh winters, the impacts of physiological stress can be more severe. Behavioral responses to overflights can range from indifference to extreme panic (NPS, 1994). Behavior can vary among species, and even among individuals within a species. Escape flight is the most common response. Frequent overflights can have the greatest likelihood of harmful consequences.

Behavioral reactions can cause injury and influence breeding success, feeding, and habitat use. Accidental injury can result from trampling, falling, and running into objects or off cliffs. Reproductive losses can occur when young or eggs are trampled, left unattended, or abandoned. Tundra swans have abandoned nests due to chronic disturbance from overflights (NPS, 1994). Panicked running or flying results in increased energy use, and reduced food intake if the animal happened to be feeding. Habitat avoidance or abandonment has been documented in response to overflights for caribou (Gunn et al., 1985), mountain sheep (Krausman and Hervert, 1983; Bleich et al., 1994), and mountain goats (Chadwick, 1973; Ballard, 1975).

The behavior of wildlife has been used to assess the influence of human activities (Hicks and Elder, 1979; Berger et al., 1983; King and Workman, 1986). Because ungulates (hoofed mammals) devote a high percentage of time to feeding and foraging behavior, time budgets (documentation of the percentage of time spent in a variety of activities) are important parameters to evaluate disturbance. Long-term disturbances may lead to acute or chronic reduction in foraging efficiency (Berger et al., 1983; King and Workman, 1986). Stockwell et al. (1991) conducted time budget studies of bighorn sheep at Grand Canyon National Park where helicopter traffic ranged from 15,000 to 42,000 flights per year. This study and others (Altmann, 1958; Berger et al., 1983; Krausmann and Hervert,

1983; Knight and Knight, 1984; Miller and Smith, 1985; Krausmann et al., 1986) indicated that the degree of disturbance was a function of the proximity of the aircraft. Rocky Mountain bighorn sheep (*Ovis canadensis*) did not respond to high-flying aircraft (over 1,300 feet [400 meters]), but did respond to low-flying aircraft (300 to 820 feet [90 to 250 meters]) by running, which increased heart rate by three to five times (MacArthur et al., 1979, 1982). Helicopters at low altitude caused a notable reduction in foraging efficiency in the Grand Canyon study (Stockwell et al., 1991). Desert mule deer and mountain sheep responded to simulated jet overflights with increased heart rates and changed behavior (Weisenberger et al., 1996). Increased heart rates were positively correlated to dB levels. Heart rates returned to pre-disturbance levels in 60 to 180 seconds and behavior returned to pre-disturbance conditions in less than 252 seconds. It took Dall's sheep 21 to 45 minutes after helicopter overflights to return to pre-disturbance levels of behavior (Frid, 1999).

Helicopter disturbance on brown/grizzly bears was summarized by the Interagency Grizzly Bear Committee (IGBC) (1987) and updated by Claar et al. (1999) and the Ministry of Environment, Lands and Parks (MELP) (2001). In a study in relatively open vegetation on the Canning River, 90 percent of the grizzlies reacted moderately or strongly to helicopters, and 21 percent to fixed-wing aircraft. Bears fled to cover 61 percent of the time in response to fixed-wing overflights, and 88 percent of the time in response to helicopters, during petroleum exploration activities in Northwest Territories (Harding and Nagy, 1976). Both studies used helicopters to pursue and dart bears, so these bears were probably sensitized to overflights, as other researchers have observed. Other studies, where helicopters were not used in capture work, also showed strong reactions to helicopter overflights, including one in Glacier National Park, where tour flights had been conducted for several years previous. Suggestions for minimizing aircraft disturbance on brown/grizzly bears included minimizing traffic during the denning period (October to early May), scheduling flights between 1 hour after sunrise to 1 hour before sunset (April through October), and maintaining a minimum altitude of 300 meters (984 feet) (IGBC, 1987; Claar et al. 1999; MELP, 2001).

Helicopter overflights elicited a greater response (47 percent on nesting bald eagles in Arizona and New Mexico) than jets (31 percent) or light planes (21 percent) (Grubb and Bowerman, 1997). Distance to aircraft and duration and number of overflights influenced response the greatest. Habituation seemed to vary among individual eagles, and generally was greatest at nest sites with the most frequent overflights. They recommended a 600-meter (1,969-foot) aircraft exclusion zone around nests. Weapons testing elicited a behavioral response in 27 percent of roosting and 7 percent of nesting bald eagles on the Aberdeen Proving Grounds in Maryland (Brown et al. 1999); however, nest success did not differ between nests on the Proving Grounds and nests in adjacent areas.

Bleich et al. (1994) warned scientists to be concerned about the effects of helicopter activity on the condition and reproductive success of large mammals. Nutritionally stressed individuals may be especially susceptible to disturbance from helicopter activity that causes them to depart from prime habitats for extended periods. Krausmann and Hervet's (1983) study also support this. Chadwick (1973) found that mountain goats in western Montana abandon habitat temporarily as a result of road building activities. The effects of such disturbance would be exacerbated for mountain goats living in environments where critical resources are limited and widely distributed (Bleich et al., 1994).

Mountain goat movements resulting from disturbance also have the potential to make them vulnerable to predation. Management recommendations from the Stockwell et al. (1991) study include minimizing impacts by restricting the number of flights and by regulating the flight altitudes of helicopters. Flight altitudes of at least 1,300 to 1,600 feet

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(400 to 500 meters) were recommended to minimize impacts. Fox (1989) recommended helicopter activity be avoided near cliff areas used by female goats for birthing (kidding) and during early neonatal periods.

The percentage of time spent feeding does not seem to be different inside or outside of escape terrain (Fox, 1983); however, the forage intake rate is probably much greater in the dense vegetation outside escape terrain. The percentage of time mountain goats spend feeding or searching for food increases with distance from escape terrain (McFetridge, 1977), probably because feeding is the only incentive for being away from the escape terrain. The relative amount of feeding time may decrease slightly with distance because of an increase in the time devoted to keeping alert to the presence of predators (Risenhoover, 1981).

Foster and RaHS (1983) analyzed mountain goat response to hydroelectric exploration activities and found that a buffer zone of a 1.2-mile (2,000-meter) radius was required to prevent an overt response to human activity. Côté (1996) studied mountain goat response to helicopter overflights associated with minerals exploration in Alberta. He also recommended a 1.2-mile (2,000-meter) buffer be established between goats and helicopter activities to minimize adverse impacts. A major concern for mountain goat management is increased human presence, resulting in mountain goat disturbance and increased legal and illegal harvest (Phelps, 1983; Quaedvlieg et al., 1973).

Habituation

Some wildlife species can develop an increased tolerance, or become habituated to aircraft overflights, decreasing apparent physiological stress and behavioral response. Frequent and predictable overflights are more likely to lead to habituation (NPS, 1994). In Glacier National Park, Singer (1975) found that mountain goats demonstrated some habituation to noise and human disturbance; however, loud construction activities caused mountain goats to restrict their use of previously used areas. During an experimental habituation program of wild mountain goats to noise stimuli representative of petroleum exploration activities near Pinto Creek, Alberta, Penner (1988) found that goats were habituated to predictable, continuous stimuli, but were disturbed by sudden, unpredictable stimuli. Nannies were sensitive to all stimuli during the kidding and post-kidding seasons. During studies of wild mountain sheep, Bleich et al. (1994) found no evidence of habituation, while Stockwell et al. (1991) suggested long-term habituation had occurred. During studies of mountain goats, Côté (1996) found no evidence of habituation, while Foster and RaHS (1983) suggested sensitization (responses increased in intensity from exposure to same stimulus) took place in response to helicopter overflights. Some species such as grizzly bear (Harding and Nagy, 1976) and black brant geese (Ward and Stehn, 1989), despite frequent exposure, may never become habituated. Habituation appears to develop most readily when the degree of disturbance is mild and regular (NPS, 1994). Habituation likely occurs, to some degree, in most situations, although animals are unlikely to adjust to intense, chronic disturbance (Frid, 1997).

Observations Near the Juneau Icefield

The term habituation is used to mean the increased tolerance of goats to helicopter overflights without individuals or their populations exhibiting negative responses. Habituation has not been demonstrated experimentally for goats on the icefield, but evidence from several sources suggests it has occurred.

Observations of mountain goat reactions to helicopter overflights in 1999, 2000, and 2001 on the Juneau Icefield indicate that habituation has likely occurred in this population. Four observations support this conclusion.

- Goats did not react as dramatically near the Juneau Icefield as they did in the only other published studies of mountain goat/helicopter interactions (Table 4-2).
- Habitat directly under flight routes in the Heintzelman Ridge, upper Salmon Creek, Sheep Creek Pass, and Glory Lake areas continues to be used.
- Aerial surveys of mountain goats within the 1995 EIS project boundary indicate that the population is stable or increasing.
- Productivity (% kids) did not differ between the icefield areas adjacent to helicopter activity and those with no helicopter tour activity (Youkey, 2002).

Table 4-2. Goat Response to Helicopter Overflight Distances

Location	Goat reaction < 1,600 feet (500 m)			Number Observed
	Light (%)	Moderate (%)	Great (%)	
Caw Ridge (Côté, 1996)	0	15	85	20
Stikine (Foster and RaHS, 1983)	41	18	41	148
Near Juneau Icefield (Forest Service, 2002)	99	1	0	419
	Goat reaction 1,600 – 4,900 feet (500 – 1,500 m)			Number Observed
	Light (%)	Moderate (%)	Great (%)	
Caw Ridge (Côté, 1996)	0	43	57	7
Stikine (Foster and RaHS, 1983)	79	13	8	40
Near Juneau Icefield (Forest Service, 2002)	99	1	0	367
	Goat reaction > 4,900 feet (1,500 m)			Number Observed
	Light (%)	Moderate (%)	Great (%)	
Caw Ridge (Côté, 1996)	63	28	9	54
Stikine (Foster and RaHS, 1983)	100	0	0	7
Near Juneau Icefield (Forest Service, 2002)	100	0	0	67

Light disturbance = animals moved < 33 ft (10 m) or were alert for < 2 min.

Moderate disturbance = animals moved 33-330 ft (10-100 m), or were alert 2-10 min.

Great disturbance = animals moved > 330 ft (100 m) or were alert > 10 min.

The Côté and Foster and RaHS studies did not report a “no disturbance” category (where no overt behavior changes were observed) so this was grouped with “light disturbance” in the table above. On the Juneau Icefield, 90%, 89%, and 89% of the reactions were classified as no disturbance at <1,600 feet, 1,600 – 4,900 feet, and >4,900 feet, respectively.

Helicopter activity has gradually increased along most flight routes in the Juneau Icefield area since 1984, giving the goat population ample time and opportunity to habituate to overflights. Many factors influence population dynamics. If helicopter tour activities were causing impacts, they were not great enough to offset other factors and could not be detected. Behavioral habituation, the lack of habitat abandonment under commonly used helicopter routes, and apparent population stability indicates that existing helicopter activity is not causing significant harm to the population. Little aircraft traffic exists in the new areas proposed for helicopter tours north of the Gilkey River and Gilkey Glacier, and little monitoring has occurred in this area. A larger buffer between wildlife, especially mountain goats, in this “new” area will most likely allow this population to become habituated. Regardless of whether or not habituation has occurred to goats in the project area, the intent of the standards and guidelines in the Forest Plan, providing for the long-term productivity of mountain goat habitat and viability of mountain goat populations, is likely to be met under all alternatives, except the Antler Glacier Lake helicopter landings under Alternative E.

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Mountain goat productivity (% kids) did not differ between areas on the icefield with helicopter activity and adjacent areas with no helicopter tour activity (Forest Service, 2002). Mountain goats were counted and their age classified using a fixed-wing aircraft for ten areas from September 4 through October 4, 2001. Helicopter glacier tours occurred on five of the areas, and little or no helicopter traffic occurred on the other five adjacent areas. Five hundred goats were counted in areas with helicopter tours and 614 goats were counted in the adjacent areas. Of these goats, 16.8 percent were kids in areas with helicopter activity, and 15.7 percent were kids in adjacent areas. There is no statistical difference between these numbers, indicating productivity is similar in both areas.

The studies and observations noted above provide the basis for the existing operational guidelines for helicopter landing tours that have allowed the wildlife to apparently adapt to the helicopter activities in the region. These restrictions include the following:

- Maintaining a 1,500-foot horizontal or vertical clearance from mountain goat habitat and kidding areas, mountain goats, black and brown bears, wolves, moose, trumpeter swans, and marine mammals including Steller sea lions, humpback whales, and harbor seals where feasible
- Maintaining a 0.25-mile (1,320-foot) avoidance of eagle nests
- Maintaining a 3,000-foot horizontal and vertical clearance from the Steller sea lion haulout on Benjamin Island
- Forbidding hovering, circling, harassing, or pursuing wildlife in any way

Overflight and Landing Effects by Alternative

Effects Common to all Alternatives

By adopting the guidelines outlined above, all action alternatives would have negligible effects on black bear, brown bear, gray wolf, bald eagle, Steller sea lion, trumpeter swan, moose, or harbor seal populations, with the exception of the combination fixed-wing/helicopter flights and landings at Antler Glacier Lake. The Antler Glacier Lake effects are discussed under Alternative E. The associated trekking, hiking, skiing, dogsled mushing, and mechanized snow vehicle expeditions would have negligible effects on wildlife because these activities would occur outside wildlife resource buffers.

For bald eagles, most overflights would maintain the 0.25-mile (1,320-foot) avoidance of active nests directed in the Forest Plan through the Interagency Agreement with USFWS. On low ceiling days, or when directed by the ATCT, this distance may not be met near the Juneau Airport. Bald eagles using these sites have been subjected to aircraft traffic for years and are likely habituated, although some disturbance exhibited by agitated behavior is likely to occur. Nonetheless, all action alternatives are likely to have negligible effects on bald eagles.

With respect to mountain goats, Forest Plan standards and guidelines would be applied to the mountain goat habitat. Potential impacts are likely to be low or negligible but could occur. Goats may be displaced from optimal feeding or kidding habitat. Displacement from habitat could cause a population decline or prevent population recovery to optimal levels.

For all operations, in both existing and new areas, no landings would be authorized within the 1,500-foot mountain goat habitat buffer. All new sites for landing tours would have the most restrictive seasonal 1-mile-buffer mitigating measure applied to the mountain goat kidding habitat.

At historically used sites on Norris, Mendenhall, Herbert, and Gilkey glaciers, where landing outside of the 1-mile or more mountain goat kidding habitat buffer cannot be feasibly achieved, site-specific mitigating measures in compliance with the Forest Plan

would be taken to avoid important kidding habitat and to provide for the long-term productivity of mountain goat habitat and viability of mountain goat populations. Activities would be located as far away as possible from the identified mountain goat kidding habitat, and no closer than 1,500 feet. If landings occur within the 1-mile buffer, additional mitigation measures would be followed, including approaching landing sites from the center of the glacier (as far from goats and kidding habitat as possible) and approaching landing sites below the elevation of goats, if terrain and weather allow. If landings do occur within the 1-mile buffer, monitoring would help determine if long-term habitat productivity and viability of mountain goat populations is being maintained, and if additional mitigation measures are warranted. Monitoring at these sites would include mapping habitat use before and during the kidding season, and observing behavior of kid groups during overflights. These historically used sites and the adjacent mountain goat populations are currently being monitored and will continue to be monitored until sufficient data are gathered to refine the wildlife buffers, validate effects on the mountain goats, or determine if other mitigation measures need to be applied. The Forest Service has no indications of mountain goat population declines, adverse effects, or problems in these areas. On Mendenhall and Herbert glaciers, landing activities would be moved from the lower sites to the upper sites as soon as snow and ice conditions allow.

Alternative A—No Action

Under this alternative, special use permits to land helicopters on the Juneau Icefield would not be issued to the helicopter glacier tour companies. Flightseeing-only tours (helicopter tours that do not land on NFS land) are outside the jurisdiction of the Forest Service and would probably continue, even if no landings were authorized. No new landing locations would be added, no motorized vehicle permits would be issued, and no expansion areas would be permitted. The Forest Service cannot predict whether the helicopter companies would fly the same number of trips, more trips, or fewer trips that would not land. Thus, wildlife impacts associated with flights could decline, remain the same, or even increase under Alternative A. Flight paths would not be restricted.

Alternatives B and C—Reduced Level of Landings

These alternatives would decrease or maintain the number of overflights and landings from the current amount and authorize fewer than the Proposed Action (Table 2-1). The difference between these alternatives in effects on mountain goats will be negligible, so they will be considered together. The relatively minor differences in number of landings, time of day, or days per week would have little influence on mountain goats. Though the reduced number of flights compared to the Proposed Action would probably reduce stress on goats, the benefit would be difficult to quantify and would probably be negligible.

Alternative D—Limit Icefield Landings to 1999 Authorized Use Level

This alternative would maintain the current authorized number of overflights and landings (see Table 2-1), and include flights and a landing site in new areas (Figure 2-4). A 1-mile buffer would be placed on mountain goat habitat in the new areas north of the Gilkey River and Gilkey Glacier. The relatively minor differences in number of landings, time of day, or days per week would have little influence on mountain goats compared to current activities or the Proposed Action. By applying the Forest Plan standards and guidelines and other restrictions discussed earlier, this alternative would have negligible effects on mountain goats. Important mountain goat kidding habitat is currently being identified in the new areas proposed in this alternative. Where all mountain goat habitat is buffered by 1 mile from flight routes and landing sites in the new areas north of the 1995 EIS area, north of the Gilkey River and Gilkey Glacier, impacts are likely to be negligible because this is the most restrictive mountain goat habitat buffer considered for new areas in this

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EIS. The 1-mile mountain goat habitat buffer would be applied to all new areas of operations, regardless of whether it is identified kidding habitat or not. Studies by Foster and Rahe (1983), Stockwell et al. (1991), and Côté (1996) suggest disturbance can be caused by activity up to 2,000 meters (1.2 miles) away. However, based on the experience of impacts to goats in currently used areas, these mild disturbances are likely to diminish with time as the goats become habituated to helicopter overflights and landings. This alternative would have negligible effects on mountain goats.

Alternative E—Proposed Action

This alternative would maintain the currently authorized number of overflights and landings (see Table 2-1) and include flights and landing sites in new areas (Figure 2-5). Forest Plan standards and guidelines and other restrictions would be applied to all new areas considered in this alternative. In addition, a mountain goat habitat buffer of 0.5 mile, more conservative than that required in the Forest Plan, would be applied to all new areas whether identified as mountain goat kidding habitat or not (except for Antler Glacier Lake, as discussed in Chapter 2). Where mountain goat habitat is buffered by 0.5 mile from flight routes and landing sites in the new areas north of the Gilkey River and Glacier, impacts are likely to be low. Studies by Foster and Rahe (1983), Stockwell et al. (1991), and Côté (1996) suggest disturbance can be caused by activity up to 2,000 meters (1.2 miles) away; however, based on the experience of impacts to goats in currently used areas, these mild disturbances are likely to diminish with time as the goats become habituated to helicopter overflights and landings. This alternative would have negligible effects on mountain goats.

The combination fixed-wing/helicopter landing at Antler Glacier Lake, as discussed in Chapter 2, would be likely to cause low to moderate impacts to wildlife. Landings in this location would compromise the 1,500-foot buffer on mountain goat habitat. Black and brown bear, gray wolf, moose, and mountain goats would be likely to be displaced from habitat. Chronic displacement from habitat could cause a population decline. In addition, the lack of vertical landing and takeoff capability of the fixed-wing aircraft would compromise the 1,500-foot wildlife buffer downstream of Antler Glacier Lake along Antler River. In addition to the impacts to species mentioned for the landing site, nesting trumpeter swans (see Figure 2-10) would be likely to be affected by these aircraft overflights. Like goats, swans are sensitive to disturbance (Rosenberg and Rothe, 1994; NPS, 1994) and may abandon nests or territories.

Alternative F—Increase Authorized Icefield Landings 5% Annually, with New Locations

This alternative would increase the number of authorized landings 5 percent each year, through 2007 (see Table 2-1). Helicopters could land 7 days a week and a 0.5-mile buffer would be placed on all mountain goat habitat in new areas north of the Gilkey River and Glacier (see Figures 2-6 and 2-10). Though the increased number of flights compared to the Proposed Action has greater potential to increase stress on goats, any negative effects on populations are expected to be negligible.

Alternative G—Increase Authorized Icefield Landings 10% Annually, with New Locations

This alternative would increase the number of authorized landings 10 percent per year, through 2007 (see Table 2-1). Helicopters could land 7 days a week and a 1,500-foot buffer would be placed on mountain goat habitat in new areas in the 1995 EIS study area and areas north of the 1995 EIS area, north of Gilkey River and Gilkey Glacier (see

Figures 2-7 and 2-10). Though the increased number of flights compared to the Proposed Action has greater potential to increase stress on goats, any negative effects on populations are expected to be negligible.

Alternative H—Preferred Alternative

This alternative would maintain the current authorized number of overflights and landings (19,039) in 2003 and 2004 and would increase the number of authorized landings 5 percent per year from 2005 through 2007 (see Table 2-1). Helicopters could land 7 days a week and a 1,500-foot buffer would be placed on mountain goat habitat in the new area at Death Valley (see Figures 2-8 and 2-10). Though the increased number of flights compared to the Proposed Action has greater potential to increase stress on goats, any negative effects on populations are expected to be negligible.

Environmental Consequences in New Areas

Impacts on new areas have been determined based on whether or not each alternative permits landings in the new area. The alternatives can be grouped into the following four categories:

Alternatives A, B, and C

Alternatives A, B, and C would have no effect on new areas because no landings would be allowed in the new areas. Alternative A, No Action, would not permit any landings on NFS land. Alternatives B and C would permit landings only in the areas currently served by helicopter landing tours.

Alternatives D, E, F, and G

Alternatives D, E (the Proposed Action), F, and G would allow landings in the area north of Gilkey Glacier to the Haines/Juneau Borough line. As noted in the previous sections, these alternatives would expose residents along the central and northern flight routes to more tour-related helicopter noise, would expose recreationists in these areas to the noise and visual impact of helicopter landing tours, and would expose wildlife in the area to more noise and more people. Effects on the icefield itself would be minimal.

Alternative E is the only alternative proposing to allow the combination tour at Antler Glacier and Antler Glacier Lake. This alternative has the greatest potential for adverse effects on recreationists and wildlife in the Antler Glacier Lake area. This alternative would expose recreationists and wildlife to more tour-related helicopter noise in the Antler Glacier Lake area and along the flight routes to the new areas north to the Haines/Juneau Borough line.

Alternatives F and G

In addition to the effects noted above, Alternatives F and G would also permit landings at Eagle Glacier and Death Valley. As noted in the previous sections, these two alternatives would expose residents, recreationists, and wildlife to more tour-related helicopter noise along the northern routes to Eagle Glacier and the eastern routes to Death Valley. The current feelings of remoteness associated with those areas would be reduced. Effects on the icefield itself would be minimal.

Alternative H

Death Valley is the only new area where landings would be permitted. As noted in the previous sections, this alternative would expose residents, recreationists, and wildlife to more tour-related helicopter noise along the eastern routes to Death Valley. The current feelings of remoteness associated with this area would be reduced. Effects on the icefield itself would be minimal.

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Environmental Consequences for Roadless Areas

National Forest Management Act (NFMA) implementing regulations require that all undeveloped areas that are of sufficient size to make practicable their conservation and use in an unimpaired condition must be evaluated for Recommended Wilderness designation during a Forest Plan revision (36 CFR 219.27). The SEIS to the 1997 Tongass Land Management Plan Revision EIS is currently being prepared to complete this evaluation.

The project area for this EIS encompasses, but is not completely inclusive of, inventoried Roadless Areas 301, 302, 305, 310, and 313 (refer to Figure 3-1 and Chapter 3 for Roadless Area descriptions). FSM 1920 and FSH 1909.12 provide policy and guidelines for management of these areas and state that a roadless area being evaluated, and ultimately recommended for Wilderness or wilderness study, is not available for any use or activity that may reduce the area's wilderness potential. Activities currently permitted may continue, pending designation, if the activities do not compromise wilderness values of the roadless area.

With respect to all alternatives considered in this EIS, including the No-Action Alternative, none change or compromise the character of the inventoried Roadless Areas in the project area. The decision regarding helicopter landing tours will not change the roadless character of the project area nor will it compromise wilderness values of the roadless areas. The proposed activities do not involve any irretrievable commitment of resources and do not alter the landscape. There is no road construction or alteration of vegetation; all activities include only helicopter access on the ice and snow surface. All facilities are temporary in nature and are completely removed at the end of the season. Site reclamation involves simple removal of facilities and the natural appearance of the icefield can be attained in a few days.

Environmental Consequences with Respect to Safety

None of the alternatives is expected to compromise the safety of aircraft or passengers because of the importance placed on safe operating procedures. Nonetheless, as more people participate in helicopter landing tours or any other aircraft flight, more people are exposed to the risks associated with flying. In that context, compared to the Proposed Action, Alternatives F, G, and H would expose more people to the risks associated with flying, while Alternatives B and C would expose fewer people to those risks.

Environmental Consequences for Air Quality

The Eurocopter A-star helicopters used for Juneau Icefield tours employ a turboshaft engine rated at about 800 shaft horsepower (shp), and burn approximately 0.6 pound of fuel per shp per hour. This means the helicopters use about 50 gallons of jet fuel per hour and can fly at approximately 125 knots for 3 hours with standard tanks. Similar helicopter operations and fuel usage have been quantified for other machines for more extensive operations in the Coast Guard service, and show no significant environmental impact on air quality (U.S. Coast Guard, 2001).

No significant impacts to air quality are expected to result from helicopter emissions under any of the alternatives for several reasons: the emissions are of short duration, are localized and then spread over a large area, and are emitted at flight elevation. Greater impacts to local air quality are associated with cars and wood stoves. The minimal impact

of helicopter emissions is demonstrated by improvements in local air quality (Table 3-8) during a period of increasing icefield landings (Table 1-1).

Cumulative Effects

Cumulative impacts with respect to helicopter landing tours take into consideration other flightseeing that does not include landings, other air traffic to the icefield, other current traffic, and proposals that might add to future aircraft activity in the Juneau area. All of these activities may contribute to cumulative impacts on residents, recreationists, and wildlife and in new areas potentially affected by helicopter landing tours.

Support Flights for Commercial Helicopter Landing Tours and Activities

Commercial helicopter landing tours involve additional flights to implement and support activities that clients participate in while on the icefield. These include, but are not limited to: inspecting specific landing sites at the beginning of the season for suitability considering weather conditions, snow and ice conditions, and crevasse development; mobilizing the temporary camps, gear, and personnel to landing sites where outfitter and guide employees are stationed for the day or entire season of operations to administer the on-the-ground activities; flights to bring in food, fuel, and employees returning from time off; and demobilization of the temporary camps and crews. For instance, an average of 50 additional flights per season occur to support the dogsled mushing camps. Other activities that involve less gear and administration, such as glacier trekking, need fewer support flights. Overall, considering the dogsled mushing, glacier walking, hiking, and trekking tours, an estimated additional 200 support flights and landings are used to support the current icefield helicopter commercial tour activities. Currently, Era slings most their supplies out of an area behind Costco in the Lemon Creek area. TEMSCO, Coastal, and NorthStar stage primarily out of their helibases at the airport.

Flightseeing with No Landings on the Icefield

The demand for flightseeing that does not include landings is related to the overall number of visitors to Juneau. Cruise ship passengers reaching Juneau increased from 237,070 in 1990 to 372,923 in 1994 and 690,000 in 2001, an average growth rate of 10 percent annually (JCVB, 1999, 2001a, 2001b, 2001c). It is likely that the growth in cruise passengers will continue and will cause a similar increase in the demand for both tours that include landings and those that do not. Some estimates have placed the expected growth of helicopter and fixed-wing flightseeing tours that do not land at 250 percent above 1995 levels (Forest Service, 1995). As stated previously, under the *Environmental Consequences for Residents* section, the current number of 45 to 50 non-landing helicopter flights conducted by the tour companies in 2001 would likely continue.

The Taku River, in particular, receives a large amount of this airplane traffic, including travel to and from Juneau/Atlin; transportation of cruise ship passengers to Taku Lodge; and flightseeing over the Juneau Icefield, primarily in the area of Taku and Norris glaciers.

Wings of Alaska, Inc.

On a typical day during the summer tourism season, Wings of Alaska, Inc., averages 45 to 50 takeoffs per day (most destined for Taku Lodge), with 70 to 75 on the busiest days, from the downtown waterfront. Each trip averages 50 minutes in length, including 10 minutes near residential areas (5 minutes out and 5 minutes back).

Alaska Coastal Airlines, LLC.

Alaska Coastal Airlines, under permit to the Forest Service in 1999 and 2000, was authorized to conduct outfitter-guided flightseeing tours to Norris Glacier Lake, Antler Glacier Lake, West Fork Lake, as well as other destinations that depart from the Juneau Airport and are not on the JRD. On Norris Glacier Lake, 50 fixed-wing landings

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were reported in 1999 and 15 were reported in 2000. No use has been reported at Antler Glacier Lake or West Fork Lake for the past 2 years.

Bear Creek Outfitters, Inc.

Bear Creek Outfitters, under permit to the Forest Service, conducts outfitter-guided fixed-wing fishing tours that depart from the Juneau Airport and the airport float pond. Bear Creek Outfitters has destinations on the JRD and Admiralty National Monument, which are outside of the project boundary; however, the flights originate from within the project area. Bear Creek Outfitters provides outfitter-guided fishing opportunities for approximately 1,000 clients annually.

Alaska Fly 'N Fish Charters, Inc.

Alaska Fly 'N Fish Charters, under permit to the Forest Service, conducts outfitter-guided flightseeing tours that depart from the Juneau Airport float pond and have destinations on the JRD and Admiralty National Monument, which are outside the project boundary. A total of 350 service days (roughly 100 departures) was authorized in 2000, although only one trip or no trip has occurred each year at each site on the JRD.

Additional companies that provide flightseeing as a relatively small part of their overall operations include Alaska Seaplanes, Haines Air, and LAB Flying Service.

Other Air Traffic to the Icefield

Other overflights in the same area also contribute to cumulative noise impacts. The JIRP, for example, conducts research on the Juneau Icefield. They have ten camps and three caches and have approximately 75 helicopter landings per year, primarily during the summer months, to support the research operations. These aircraft travel similar routes to those used by the four companies that conduct landing tours to the Juneau Icefield. The cumulative effect of these landings is that it adds more noise exposure to recreationists, Juneau residents, and wildlife in addition to the effects described in this EIS.

The icefield and surrounding areas also receive a significant and growing amount of point-to-point traffic that is not covered by this EIS or by the helicopter companies' special use permits. FSM 2721.53 states that "strictly point-to-point air, auto/bus, or boat transportation services at competitive fee rates to NFS land, improvements or resources, that is, trips that are not a tour or package trip..., do not require a permit." These activities currently include unguided activities, such as heli-skiing, heli-hiking, photo shoots, wildlife viewing, heli-fishing, and similar activities. These activities are becoming increasingly popular, and the air traffic and human activity they generate adds to the cumulative impacts of all local air traffic and activity on the icefield. The amount of such traffic and activity has not been estimated, however.

Other Air Traffic and Other Proposals

Skagway Air and Ward Air report that they do not provide flightseeing services, but they do provide regular and charter transportation to destinations in the Juneau vicinity and neighboring communities. Also, an undetermined amount of privately owned plane traffic on recreational flights or training flights occurs in the airport and icefield vicinity. This air traffic within the Gastineau Channel, Lynn Canal, and Taku River corridor contributes noise additional to the helicopter travel discussed in this EIS.

Alaska Airlines, LAB Flying Service, and Skagway Air offer daily service to and from the Juneau Airport. Collectively, these commercial airlines have approximately 40 departures and 40 arrivals daily. These 80 overflights also contribute to the noise level in the Juneau area.

The Army National Guard, under permit to the Forest Service, conducts exercises using one to two UH-60 Blackhawk helicopters for 5 to 7 days each month, primarily September through March, on the eastern side of the Chilkat Range. This helicopter use

is not in the vicinity of the Juneau Icefield and travel routes to the Chilkat Mountains from Juneau are not in the area of the travel routes identified in this EIS. The cumulative impacts of this activity are focused in the immediate airport vicinity where the Army National Guard helicopters are based.

Several proposals that could increase local air traffic have been submitted to the Forest Service and are under consideration. Separate NEPA documents will be completed for these proposals to analyze their effects. The demand for more participative, resource-interactive activities is increasing, as indicated by the recent proposals described below. Current Juneau Icefield helicopter activity will be evaluated in cumulative effects analysis for those proposals, which include the following:

- The Forest Service has received a request for heli-hiking tours in the alpine area of the Juneau forelands between Mendenhall Valley and Berners Bay (1,600 landings per year). A separate NEPA document would be needed to analyze the effects of authorizing this request. At that time the environmental effects from helicopter glacier landing tours will be considered.
- Dorothy Lake Hydro Inc., in Taku Inlet, has proposed adding a heliport to the proposed Dorothy Lake Hydropower site for access. The proposal is pending NEPA analysis.
- The Forest Service has received a proposal from a mining claim owner adjacent to Herbert Glacier for outfitter-guided gold panning accessed by helicopter. This proposal is pending further research and analysis.
- Three proposals for helicopter/ski-plane access for outfitter-guided ice and rock technical climbing, and alpine trekking on the Juneau Icefield, have been received in the past few years. These proposals are pending further analysis.
- One project that has already been analyzed in a NEPA document, but is currently on hold, is the proposed Kensington Gold Project. Kensington Venture (now Coeur Alaska Inc.) originally proposed to ferry crews to the project site from the Juneau Airport by helicopter (Forest Service, 1992a). The Kensington Gold Project FEIS analyzed these additional flights to and from the Juneau Airport and determined that noise caused by these additional aircraft flights would not have a significant effect on wildlife, recreationists, or residents because any incremental increase would be small compared to the existing traffic volumes. In May 2000, Coeur Alaska Inc., submitted a proposal to amend its plan of operations. Part of that proposal indicated that fast ferry travel across Berners Bay to the mine site would be used instead of helicopters. The project as currently proposed would not contribute to cumulative helicopter impacts.

Other Cumulative Effects

Cumulative effects on residents and recreational users may also result from other guided activities in the Juneau area. Such activities include floatplane tours, guided raft trips, other forms of guided trips for cruise ship passengers, and various mechanized activities.

Irreversible and Irretrievable Commitment of Resources

An irreversible commitment of resources is defined as the loss of future options. It applies primarily to non-renewable resources, such as minerals or cultural resources, and to those factors that are renewable only over long time spans, such as soil productivity.

Irretrievable commitments represent the loss of production, harvest, or use of renewable resources. These opportunities are foregone for the period of the proposed action, during which other resource utilization cannot be realized. These decisions are reversible, but the utilization opportunities foregone are irretrievable.

4 Environmental Consequences

Authorization of special use permits for helicopter icefield landings would not cause a foreseeable or predicted irreversible or irretrievable commitment of resources. As noted above in *Environmental Consequences for Residents*, it is possible that noise from helicopters may result in some reductions in property values and may contribute to revenue losses for local businesses. Reductions in property value or business revenue could be considered irretrievable commitments of economic resources.

The fuel used by helicopters to fly to and from landing sites would constitute an irreversible commitment of non-renewable resources. As noted under *Environmental Consequences for Air Quality*, helicopters use approximately 50 gallons of fuel per hour. Assuming each helicopter spends 30 minutes in the air per landing, the following approximate amounts of fuel would likely be consumed annually under each alternative.

- Alternative A – zero gallons associated with landing tours; an undetermined amount of fuel associated with non-landing tours
- Alternative B – 300,000 gallons
- Alternative C – 420,000 gallons
- Alternative D – 480,000 gallons
- Alternative E – 480,000 gallons
- Alternative F – 610,000 gallons
- Alternative G – 770,000 gallons
- Alternative H – 560,000 gallons

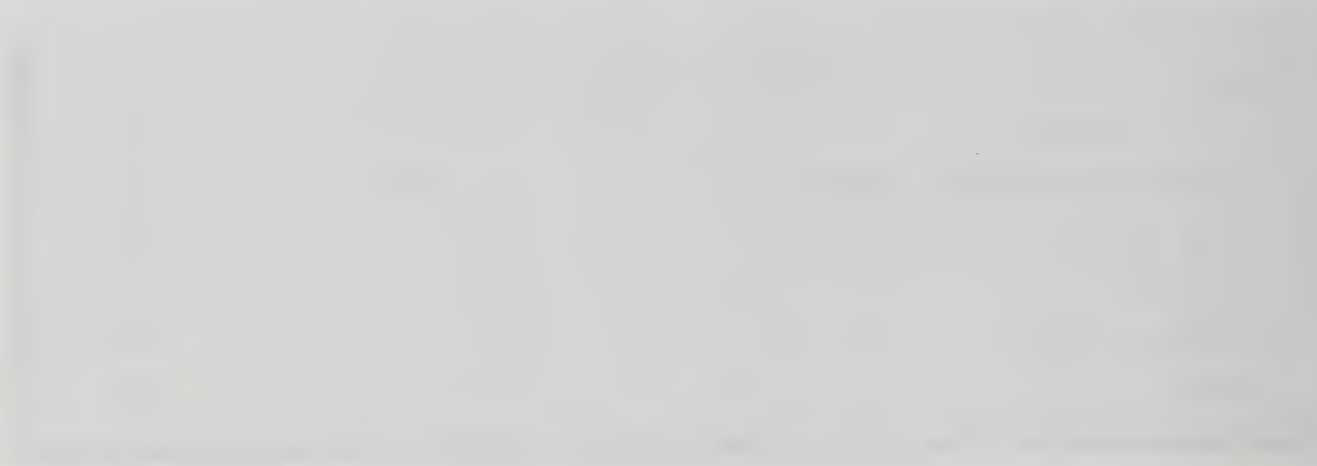
CHAPTER 5

LISTS

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CHAPTER 1

1.1



Chapter 5

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Acronyms and Abbreviations

AAC	Alaska Administrative Code
AACA	Alaska Air Carriers Association
ADF&G	Alaska Department of Fish and Game
AGL	above ground level
ANILCA	Alaska National Interest Lands Conservation Act
ATCT	Air Traffic Control Tower
CBJ	City and Borough of Juneau
CFR	Code of Federal Regulations
Coastal	Coastal Helicopters, Inc.
dB	decibel
DCED	Department of Community and Economic Development
DEIS	draft environmental impact statement
DN	decision notice
DNL or L_{dn}	day/night average sound level
DOD	Department of Defense
DOT	Department of Transportation
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EPA	Environmental Protection Agency
Era	Era Helicopters, Inc.
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FEIS	final environmental impact statement
FICAN	Federal Interagency Committee on Aviation Noise
FICON	Federal Interagency Committee on Noise
FICUN	Federal Interagency Committee on Urban Noise
FONSI	finding of no significant impact
FSD	Flight Standards Division
FSH	Forest Service Handbook
FSM	Forest Service Manual
GIS	Geographic Information System
HAI	Helicopters Association International
HNL	hourly noise level
IGBC	Interagency Grizzly Bear Committee
JCVB	Juneau Convention and Visitors Bureau
JIRP	Juneau Icefield Research Program
JRD	Juneau Ranger District
$L_{eg, 1hr}$	hourly A-weighted energy equivalent
LOA	letter of agreement
LUD	land use designation
m	meter
MELP	Ministry of Environment, Lands and Parks
MGRA	Mendenhall Glacier Recreation Area
Michael Baker	Michael Baker Jr., Inc.
$\mu g/m^3$	micrograms per cubic meter
MIS	management indicator species
MMPA	Marine Mammal Protection Act
NEPA	National Environmental Policy Act
NFS	National Forest System

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NMFS	National Marine Fisheries Service
NOI	notice of intent
NorthStar	NorthStar Trekking, Inc.
NPS	National Park Service
NRRS	National Recreation Reservation Service
ORV	off-road vehicle
OSHA	Occupational Safety and Health Administration
ROD	record of decision
ROS	recreation opportunity spectrum
SDTDC	San Dimas Technology and Development Center
SEL	sound exposure level
shp	shaft horsepower
TAC	Tourism Advisory Committee
TEMSCO	TEMSCO Helicopters, Inc.
TES	threatened and endangered species
TLRMP	Tongass Land and Resource Management Plan
TOPS	Tour Operators Program of Safety
USDA	U.S. Department of Agriculture
USDI	U.S. Department of the Interior
USFWS	U.S. Fish and Wildlife Service
VFR	visual flight rules
VLOA	voluntary letter of agreement

Glossary

Actual Use: The amount of use that actually occurred. Tallied from actual use reports submitted to the Forest Service by the special use permit holder. Measured in number of service days and/or number of landings.¹

Allocated Use: Identifies the amount of use that is allocated and authorized to a special use permit holder. Allocated use is usually identified on the face page of the special use permit and measured in number of service days and/or number of landings.

Assigned Site: A location that is authorized for occupancy and use by the Forest Service and for which a fee is paid by the permit holder. Formerly known as a “designated” or “reserved” site.¹

Authorized Use: Activities and amount of use approved by the Forest Service. Approval can be granted by issuance of a permit or approval of an annual itinerary, operating plan including amendments thereof associated with a permit. The amount or level of use (possibly with maximum numbers and special use stipulations) is often identified in an NEPA decision document. Typically measured in number of service days and/or number of landings.¹

A-weighting: Humans and other species hear mid- to high-frequency sounds better than they hear low-frequency sounds. Researchers have developed frequency weightings that correspond to how humans perceive the loudness of sound at various frequencies. Research has found that people make relative judgements regarding the loudness, annoyance, or disturbance of sounds that correlate well with the frequency weighting called the “A-weighting.” Consequently, A-weighting sound levels normally are used to describe environmental sounds, and all metrics reported in this EIS are A-weighted.

Buffer: A specified distance or area where an activity is not authorized to occur, established for the purpose of mitigating impacts to another activity or natural resource.

Commercial Use or Activity: Any use or activity on National Forest System Lands (a) where an entry or participation fee is charged, or (b) where the primary purpose is the sale of a good or service, and in either case, regardless of whether the use or activity is intended to produce a profit.¹

Day/Night Average Sound Level (DNL or L_{dn}): A single-number, 24-hour noise exposure metric that takes the noise level of individual events, the duration of the event, the number of events per day, and the time of day these events occur into consideration. Federal agencies such as the Environmental Protection Agency (EPA), the Federal Aviation Administration (FAA), and the Department of Defense (DOD) use DNL to depict the relationship between a particular noise exposure and community annoyance.

Day Use: Outfitting and guiding involving no overnight use of National Forest System Land.¹

Decibel (dB): A unit for expressing relative intensity of sounds on a scale from zero for the average least perceptible sound to about 130 for the average pain level.

Enclave: An enclave on the Juneau Icefield is considered, for the purpose of this document, a “minor development” as described in the Recreation and Tourism Standards and Guidelines (Forest Plan, pages 4-38 through 4-45), due to the temporary nature and single purpose or service provided at the site. The area an enclave occupies typically is one to five acres, but may involve a larger area, depending on the nature of the activity

¹ As defined in the Forest Plan or the Outfitter-Guide Administration Guidebook (Forest Service, February 1997).

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and the desired recreation experience. Site occupancy may involve portable, temporary facilities to accommodate guides and/or clients during the day or overnight, as well as the area used for the activity. Examples include: temporary or portable structures, as well as facilities and trails for dogsled mushing, cross-country skiing, snowmobiles, glacier trekking, or other participative activities that involve more than simple walking and viewing the icefield environment. Activity accessories are of a temporary, portable nature in that they can be easily removed from the site. On-site developments may include but are not limited to the following: dogs, dog houses, dogsleds, self-contained waste disposal units, kitchen and food storage facilities, portable Quonset hut or weather port type accommodations for guides and clients, warming huts, snowmobiles, emergency rescue gear, ski gear, communications equipment, and other equipment necessary to support the approved activities. Occupancy requires the area to be an assigned site.

Encounter: See social encounter.

Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, technical, and safety factors. In evaluating feasibility, the following are considered: 1) the effectiveness and practicality of the measures being considered, and 2) the long- and short-term costs of the measures and the effect of those costs on long- and short-term economic viability of projects and programs.

Guideline: A preferred or advisable course of action or level of attainment designed to promote achievement of goals and objectives.¹

Hourly Noise Level (HNL) or hourly A weighted energy equivalent ($L_{\text{eg}, 1\text{hr}}$): The constant sound level that equals the sound energy of the actual time-varying sound over a specific time period.

Land Use Designation (LUD): A defined area of land specific to which management direction is applied.¹

Land Use Prescriptions: Specific management direction applied to a defined area of land (land use designation) to attain multiple use and other goals and objectives.¹

Landing: The equivalent number of round trip flights that a helicopter makes in association with a commercial icefield landing tour. The level of use authorized in the special use permits for the commercial helicopter icefield landing tours is measured and allocated by the number of landings.

Landing Site (also referred to as “site”): An area, usually not more than one to three acres, where helicopters land to engage in an icefield activity. Exact locations of landing sites are greatly dependent on the changing snow and ice conditions, weather, and other activities as they occur in the vicinity.

Load Factor: The number of passengers that a helicopter transports, excluding the pilot.

L_{90} : The sound level that is exceeded 90 percent of the time. It is often used to describe background noise level.

Major Development: Major recreation and tourism developments provided by the private sector involve long-term commitment of the land base, with a moderate to high level of site modification. The site modifications involve large buildings or complexes of buildings and facilities, and often provide several services in a concentrated area. Comfort and convenience are provided for guests, and facilities can generally accommodate more than 12 people. The proposals are typically Development Scale 3, 4, or 5, and Roaded Natural or Rural ROS settings. Site reclamation involves removal of facilities and extensive improvements including revegetation, recontouring, etc. A natural appearance can take more than 5 years to attain. Examples include destination resorts and lodges,

food and beverage services, downhill ski areas, marinas and gas stations, and full service campgrounds.¹

Minor Development: Minor recreation and tourism developments provided by the private sector involve only minor site modifications. They involve small rustic facilities and/or improvements, generally with a single purpose or service, and may involve several sites or an extensive area. Basic essentials are typically provided, and can generally accommodate 12 or fewer people per site. The proposals are typically Development Scale 1 and 2, with a Semi-Primitive ROS setting. Site reclamation involves simple removal of facilities and little or no revegetation; a natural appearance can be attained in a few years. Examples include cabins, huts, small docks, cross-country ski trails with simple facilities, temporary or portable camps, and simple and rustic campgrounds. For the purpose of this EIS, the participatory activities being proposed on the icefield are all considered minor developments due to their temporary nature and single purpose or service. The number of landings and people per site per day will be limited by the LUD as defined in the Forest Plan Standards & Guidelines for Recreation & Tourism, Maximum Recreation and Tourism Development Generally Allowed by LUD (see Appendix B, page B-12).

Mitigate: To lessen or make minimal the severity.¹

Noncommercial Use or Activity: Any use or activity that does not involve a commercial use or activity as defined in this section.¹

Occupancy and Use: To enter upon or cause entry upon lands administered by the National Forest System for the purpose of conducting outfitter and/or guide operations. Examples include: outfitting, guiding, camping, leaving or storing equipment, or having a camp in place (tent, etc.) even if unattended or unoccupied by humans.¹

Service day: A day or any part of a day on National Forest System lands for which an outfitter or guide provides goods or services, including transportation, to a client.¹

Social Encounter: The degree of solitude or social opportunities the setting provides, usually in terms of other parties encountered while traveling within the setting, and/or within sight or sound while camped within the setting.

Sound Exposure Level (SEL): This metric combines both A-weighted sound magnitude and the duration of the event. When two events of the same magnitude are rated, researchers have found that the event lasting the longest will be rated as noisier or more annoying. Aircraft noise, and specifically helicopter noise, falls into the broad category of transient noise, which is characterized as sound that increases over a period of time to a maximum level, then decreases to a level that corresponds to the normally fluctuating background noise. SEL is widely used to describe the noises generated by various transportation noise sources because it can quantify transient noise.

Special Use Authorization: A permit, term permit, lease, or easement, which allows occupancy, use, rights, or privileges of National Forest System land.¹

Special Use Permit: A special use authorization that provides permission, without conveying an interest in land, to occupy and use National Forest System land or facilities for a specified purpose. Authorization permits are revocable, terminable, and non-compensable.¹

Standard: A course of action or level of attainment required by the forest plan to promote achievement of goals and objectives.¹

Temporary Structure: Structure that is erected and dismantled in one season or less.¹

Time Above: The total time during a day that noise levels exceed a certain level (for example, total minutes above 65 dBA).

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Conversion Table

To Convert From	To	Multiply By
Foot	Meter (m)	0.3048
Mile	Foot	5,280
Mile	Meter (m)	1.609×10^3
Mile	Kilometer (km)	1.609
Meter	Kilometer	1,000

Notes:

1,500 feet = 0.28 mile

1,500 feet = 457.2 m

1,500 feet = 0.46 km

0.5 mile = 0.80 km

3 miles = 4.83 km

5 miles = 8.05 km

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APPENDIX A

CHANGES IN SERVICE DAYS, LANDINGS, AND LOAD FACTORS

APPENDIX A

CHARTER OF 1890
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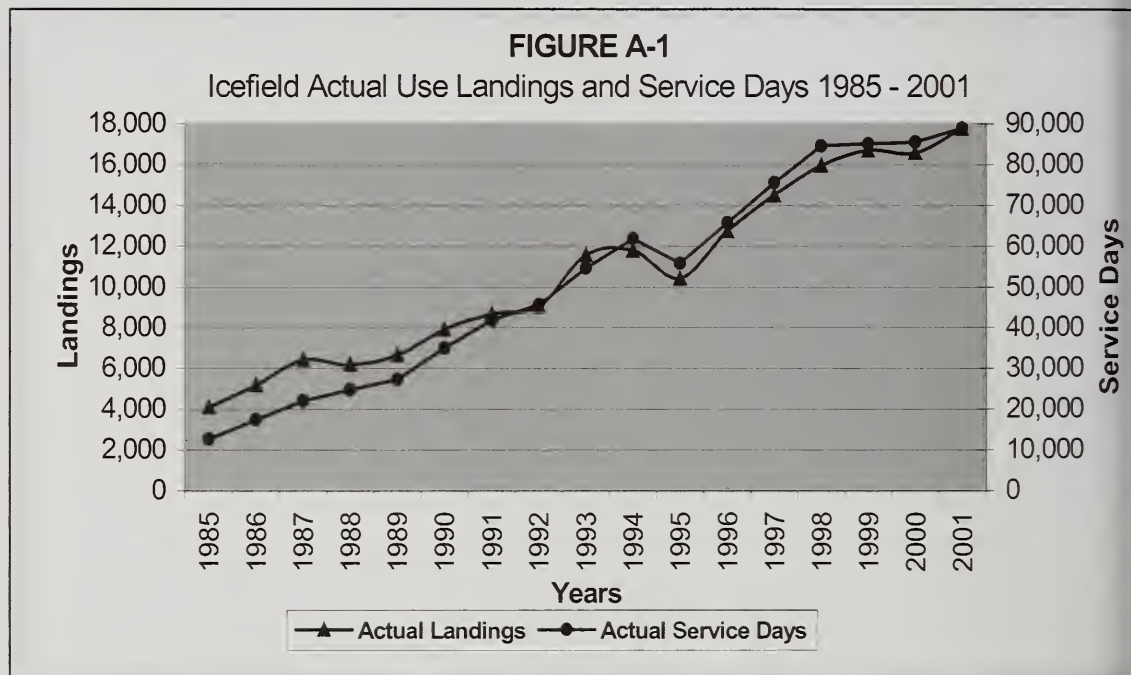
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Appendix A

Changes in Service Days, Landings, and Load Factors

The number of commercial helicopter landing tours on the Juneau Icefield has grown somewhat proportionately with the increase in cruise ship passengers to Juneau over the last 15 years. According to Juneau Convention and Visitors Bureau (JCVB) statistics (JCVB, 2001), the number of cruise ship passengers increased an average of 10 percent annually between 1982 and 2001. The number of icefield landings has grown an average of 9 percent each year, while the number of service days (the number of helicopter tour passengers) has averaged a 12 percent annual growth. Figure A-1 displays the growth trends for the number of landings compared to the number of service days.



From 1984 to 1997, commercial helicopter landing tour authorizations on the Juneau Icefield were based on numbers of passengers or service days. Prior to the 1995 Helicopter Glacier Tours Final Environmental Impact Statement (EIS), the commercial landing activities were analyzed and allocated by the number of service days in certain areas of the icefield. Subsequently, the 1995 EIS identified the limiting factor to be number of landings instead of service days. It was not until 1998, however, that the special use permits identified allocations to each helicopter tour company using the number of landings. The number of landings that occurred prior to 1997 has been calculated by using the average number of passengers per trip (or load factor) to estimate the equivalent number of landings that took place prior to 1998. In 1998, the Forest Service began authorizing helicopter landing tours using the number of landings instead of number of service days because it seemed to be a more logical unit of measure for the

activity. The majority of issues raised by the public have evolved from the number of landings, or round-trip flights, that occur, and not with the number of helicopter passengers on the icefield. It is worthy of noting here that commercial use fees paid to the Forest Service by helicopter landing tour providers are based on the number of service days.

At the same time demand for helicopter landing tours was growing, the average number of passengers per trip, or load factor, has increased overall from 3.1 in 1984 to 5.2 in 2000. This increase is due in part to newer helicopters that can carry more passengers. The Hughes 500, which was used for many of the helicopter tours from 1984 to 1986, carried up to 3 passengers. The A-Star, which is currently the available state-of-the-art helicopter, has technologically advanced from carrying five passengers to carrying up to six passengers. The load factor has increased steadily over the years and currently averages approximately 5.1 passengers per flight. The passenger group size in each helicopter varies with the total weight of the passengers as well as how they are grouped for the tour (e.g., two couples wishing to take the trip together; or a family of four, five, or six.)

Many of the helicopter companies have offered flightseeing landing tours with one or multiple landings (usually two) on different areas of the icefield, as part of one round trip flight from the helibase. Historically, and for the purposes of this document, multiple landing tours are counted as one landing tour because it involves only one round trip flight from and back to the helibase.

Table A-1 shows numbers for the actual use of service days, landings, and load factors since 1984. The reporting procedures regarding the actual number of landings that occurred for the tours have changed over time. In addition, reporting procedures for multiple landing tours versus single landing tours have changed. These inconsistencies may be the cause of the apparent decrease in the load factor during 1993 through 1997. The Forest Service now measures and allocates the landing tours with "number of landings" and uses service days for calculating the outfitter guide special use fees. A multiple landing tour is considered one landing for the purposes of allocating numbers of landings.

Table A-1. Actual Use Service Days, Landings, and Load Factor

Year	Service Days (passengers)	Landings	Load Factor (# passengers per trip)
1984	1,986	662	3.0
1985	12,637	4,076	3.1
1986	17,353	5,175	3.4
1987	22,023	6,410	3.4
1988	24,783	6,175	4.0
1989	27,326	6,648	4.1
1990	34,989	7,913	4.4
1991	41,887	8,674	4.8
1992	45,711	9,046	5.1
1993	54,589	11,559	4.7
1994	61,898	11,793	4.8
1995	55,815	10,421	4.7
1996	65,709	12,741	4.6
1997	75,491	14,494	4.7
1998	84,623	15,959	5.3
1999	85,174	16,706	5.1
2000	85,531	16,583	5.2
2001	88,960	17,783	5.0

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Juneau Convention and Visitors Bureau. 1999. Cruise Passenger Traffic to Juneau. November 10, 1999.

Juneau Convention and Visitors Bureau. 2001. Telephone conversation between John Mazor, President of the Juneau Convention and Visitors Bureau, and Laurie Thorpe, Special Uses Administrator, U.S. Forest Service, Juneau Ranger District. November 9, 2001.

APPENDIX B

LAND USE DESIGNATION MANAGEMENT PRESCRIPTIONS AND FOREST-WIDE STANDARDS AND GUIDELINES

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Appendix B

Land Use Designation Management Prescriptions and Forest-Wide Standards and Guidelines

Land Use Designation Management Prescriptions

Chapter 3 of the 1997 Tongass Land and Resource Management Plan (also known as the Forest Plan) discusses the goals, objectives, and desired condition for each of the land use designations (LUDs) management prescriptions for each LUD. The LUD management prescriptions are used in conjunction with the forest-wide standards and guidelines. The proposed landings on the Juneau Icefield could occur in three LUD areas in the Tongass National Forest: LUD II, Remote Recreation, and Semi-Remote Recreation.

Goals, Objectives, and Desired Condition by LUD

The goals, objectives, and desired condition for each of these LUDs, as stated in the Forest Plan, are listed below.

LUD II (Land Use Designation LUD II)

Introduction

Twelve areas were permanently allocated to L2 special management in the Tongass Timber Reform Act. These areas are: Yakutat Forelands, Berners Bay, Anan Creek, Kadashan, Lisianski River/Upper Hoonah Sound, Mt. Calder/Mt. Holbrook, Nutkwa, Outside Islands, Trap Bay, Point Adolphus/Mud Bay, Naha, and Salmon Bay. Specific management criteria for Land Use Designation II areas are defined in the Tongass Land Management Plan, completed March 1979, and amended Winter 1985-1986 (pp. 8-9).

Goals

To manage the 12 areas designated in perpetuity as Land Use Designation II (LUD II) by the Tongass Timber Reform Act according to the direction for LUD II areas in the 1979 Tongass Land Management Plan, as amended.

To manage these areas in a roadless state to retain their wildland character.

Objectives

Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated by the Primitive and Semi-primitive Recreation Opportunity Spectrum classes. Apply the LUD II direction from the 1979 Tongass Land Management Plan which is summarized as follows:

- prohibit commercial timber harvest. Permit salvage logging only to prevent significant damage to other resources. Allow personal use of wood for cabin logs, fuelwood, float logs, trolling poles, etc.
- permit water and power developments if designed to be compatible with the primitive characteristics of the area
- permit roads only for access to authorized uses, for transportation needs identified by the state or for vital linkages (See the Standards & Guidelines in this prescription)
- allow mineral development
- permit boats, aircraft, and snowmachines, unless such uses become excessive
- permit fish and wildlife habitat improvements. Design structures to minimize the effects to recreation resources
- permit primitive recreational facilities
- major concentrated recreational facilities will generally be excluded

Salvage logging, personal use of wood, water and power development, fish and wildlife habitat improvement, and research facilities will be designed to be compatible with the primitive characteristics of the area.

Desired Condition

Areas in this Land Use Designation are characterized by extensive, generally unmodified natural environments, and retain their wildland character. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a high-to-moderate degree of independence, closeness to nature, solitude and remoteness and may pursue activities requiring self-reliance, challenge, and risk. Interactions between users are infrequent. Recreational facilities and structures are primitive.

Remote Recreation (Land Use Designation RM)

Goals

To provide extensive, unmodified natural settings for primitive types of recreation and tourism.

To provide opportunities for independence, closeness to nature, and self-reliance in environments offering a high degree of challenge and risk.

To minimize the effects of human uses, including subsistence use, so that there is no permanent or long-lasting evidence.

Objectives

Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Primitive Recreation Opportunity Spectrum class.

Provide trails and primitive facilities that are in harmony with the natural environment and that promote primitive recreation experiences.

Apply the Retention Visual Quality Objective.

Fish enhancement projects may occur. Design wildlife habitat improvements to emulate natural conditions and appearance.

Desired Condition

Areas in the Remote Recreation Land Use Designation are characterized by extensive, unmodified natural environments. Ecological processes and natural conditions are not noticeably affected by past or current human uses or activities. Users have the opportunity to experience independence, closeness to nature, solitude and remoteness, and may pursue activities requiring self-reliance in an environment that offers a high degree of challenge and risk. Interactions between users are infrequent. Motorized access is limited to traditional means: boats, aircraft and snowmachines. Facilities and structures are minimal, and rustic in appearance.

Semi-Remote Recreation (Land Use Designation SM)

Goals

To provide predominantly natural or natural-appearing settings for semi-primitive types of recreation and tourism and for occasional enclaves of concentrated recreation and tourism facilities.

To provide opportunities for a moderate degree of independence, closeness to nature, and self-reliance in environments requiring challenging motorized or non-motorized forms of transportation.

Objectives

Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Semi-primitive Recreation Opportunity Spectrum classes. Enclaves of concentrated recreation and tourism developments within the Land Use Designation or management activities in adjacent Land Use Designations may cause the ROS setting to become Rural.

Determine on a case-by-case basis whether roads, trails, and other areas should be closed to motorized recreation activities. If so, incorporate into Off-Highway Vehicle (OHV) plans. If not, the use of boats, aircraft, and snowmachines for traditional activities is allowed.

Permit small-scale, rustic recreation and tourism facilities, and occasional enclaves of concentrated recreation and tourism facilities.

Apply the Partial Retention Visual Quality Objective to any developments, facilities, or structures.

Fish enhancement and wildlife habitat improvement may occur.

Desired Condition

Areas in the Semi-Remote Recreation Land Use Designation are characterized by generally unmodified natural environments. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a moderate degree of independence, closeness to nature,

solitude and remoteness, with some areas offering motorized opportunities and others non-motorized opportunities (except for the traditional uses of boats, aircraft, and snowmachines). Interactions between users are infrequent. Facilities and structures may be minimal or occasionally may be larger in scale, but will be rustic in appearance, or in harmony with the natural setting.

Recreation and Tourism Standards and Guidelines by LUD

The recreation and tourism standards and guidelines for the three LUDs, as stated in the Forest Plan, are listed below.

LUD II

Recreation Use Administration: REC122

Recreation Management and Operations

- A. Generally provide for semi-primitive ROS settings, recognizing that more developed settings may be present due to authorized activities, existing use patterns, and activities in adjacent Land Use Designations.
 - 1. Primitive recreation facilities, such as recreation cabins, boat docks, moorings and trails may be constructed and maintained.
- B. Major concentrated recreation facilities, such as development scale IV and V (those heavily-modified or with a high degree of site modification) will generally be excluded.
- C. If a transportation link is constructed through this Land Use Designation, recreation facilities needed to serve the traveling public, to reduce impacts of recreation use to adjacent wildlands, or to provide interpretation, may be constructed in proximity to the transportation link.

Recreation Special Uses

- A. Major developments are generally not consistent with the objectives of the Land Use Designation. Development proposals require scrutiny of the magnitude and scope for Land Use Designation conformance. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
- B. Minor developments may be compatible with the Land Use Designation objectives depending on the scope, purpose, and magnitude of the proposal. Each proposal will be evaluated on a case-by-case basis. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.

Remote Recreation (RM)

Recreation Use Administration: REC122

Recreation Management and Operations

- A. Manage for Primitive recreation settings, recognizing other Recreation Opportunity Settings (ROS) may be present due to authorized activities, existing use patterns, and activities in adjacent Land Use Designations. Strive to minimize these changes from the Primitive ROS objective.

- B. Manage recreation and tourism use to meet the levels of social encounters, on-site development, and visitor impacts indicated by the ROS charts in the Recreation and Tourism Forest-wide & Guidelines.

Recreation Special Uses

- A. Major developments are generally not consistent with the objectives of this Land Use Designation. Development proposals require scrutiny of the magnitude and scope for Land Use Designation conformance. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.
- B. Minor developments may be compatible with the Land Use Designation objectives depending on the scope, purpose, and magnitude of the proposal. Proposals will be evaluated on a case-by-case basis. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.

Semi-remote Recreation (SM)

Recreation Use Administration: REC122

Recreation Management and Operations

- A. Generally, manage for Semi-primitive Recreation Opportunity Spectrum (ROS) settings. Enclaves of concentrated recreation and tourism developments within the Land Use Designation or management activities in adjacent Land Use Designations may cause the ROS setting to become Roaded Natural, Roaded Modified, or Rural.
- B. Determine on a case-by-case basis whether roads, trails, and other areas should be closed to motorized recreation activities; incorporate determinations in Off-Highway Vehicle (OHV) Plans.
 - 1. Manage roads for Traffic Service Level D except when level C roads provide access to or through the Land Use Designation. Occasional enclaves of concentrated recreation and tourism developments could warrant higher service levels in those areas.
- C. Where roads, trails, and other areas are closed to motorized recreation activities or vehicles, provide Semi-primitive Non-motorized recreation opportunities.
 - 1. Permit use of snowmachines, motorboats, and aircraft for traditional activities.
- D. Permit small scale, rustic recreation and tourism facilities such as recreation cabins, shelters, docks, and enclaves of concentrated recreation and tourism development.
 - 1. During all construction activity:
 - * Minimize site modification.
 - * Minimize vegetation clearing adjacent to the site.
 - * Use colors found in the natural environment.

Recreation Special Uses

- A. Major and minor developments are compatible with this Land Use Designation. Refer to the Recreation and Tourism Forest-wide Standards & Guidelines.

Forest-Wide Standards and Guidelines

The Forest Plan contains many forest-wide standards and guidelines that apply to all LUDs on the National Forest System lands. Chapter 4 of the Forest Plan addresses these standards and guidelines for recreation and tourism; subsistence; threatened, endangered, and sensitive species; and wildlife habitat planning as they apply to the protection and management of the different forest resources. The forest-wide standards and guidelines are used in conjunction with the additional land use designation standards and guidelines.

Recreation and Tourism Forest-wide Standards and Guidelines (REC 111, REC 112, REC 122)

The forest-wide standards and guidelines for recreation and tourism are as follows:

Recreation Resource Inventory: REC111

I. *Recreation Resource Opportunities*

- A. Maintain the inventory of recreation resource opportunities throughout the Forest.
 1. Use the Recreation Opportunity Spectrum (ROS) system and Tongass National Forest Recreation places Inventory. (Consult FSM 2310 and National/Regional ROS Handbooks.)
 2. Update existing ROS inventories as a part of specific project planning and implementation, and whenever project activities cause a change in recreation setting conditions significant enough to reclassify the affected area.
 3. Maintain the necessary data to determine the individual and/or cumulative changes in ROS class distribution throughout the Forest.

Recreation Resource Planning: REC112

I. *Interagency Planning*

- A. The principal feature that sets National Forest System lands apart from most other suppliers of outdoor recreation is the ability to provide opportunities for generally unconfined outdoor recreation, free of urban influences. National policy directs that these special opportunities be maintained for current and future generations; and that National Forest recreation focus primarily on activities which require a large land base and provide a contrast to urbanization. As a part of the National Forest role of helping meet national and regional social needs, endeavor to encourage traditional American values such as a conservation ethic, appreciation of nature, national and community pride, and national and community well-being including the stability of lifestyle and character. Accomplish this through providing opportunities and programs which are appropriate to the forest environment, dependent upon natural settings, and which help participants experience and understand nature.
 1. Determine the appropriate role of the National Forest System lands in providing natural resource-based recreation opportunities, sites, facilities, and experiences. Within the context of National policy, cooperate and coordinate with National, state, and local agencies in providing a balance of outdoor recreation opportunities throughout Southeast Alaska.

2. Use the ROS framework of settings and experience opportunities to define the capabilities of National Forest System lands to meet identified recreation needs and services. (Consult ROS Handbooks and Forest ROS maps.)
- B. Provide recreation opportunities on National Forest System lands in concert with, and supplemental to, those opportunities which are located on other land ownerships and jurisdictions. Generally, recreation areas, sites, and facilities located on National Forest System lands should:
 1. Complement commercial public services (i.e., resorts, marinas, stores, service stations) within communities or on private or other public land.
 2. Support a system of anchorages suitable for recreation boats along small boat waterways which connect communities or provide access to popular recreation attractions.
 3. Provide other appropriate facilities to meet specific identified recreation needs on a case-by-case basis.
- C. Cooperatively participate with local communities and user groups when implementing recreation development projects. Implementation should:
 1. Involve the public and affected communities, landowners, and other affected interest groups in the project planning process.
 2. Recognize that recreation use by residents and tourists radiate from communities and service centers to use lands and facilities under a variety of ownerships and jurisdictions.
 3. Verify the local role of the Forest Service in providing recreation opportunities, services, and facilities.
 4. Verify the basis for developing Forest Service recreation-related projects.
 5. Identify sites and activities where joint or cooperative development or management is desirable. Include opportunities for such things as: on-site interpretation of natural and cultural resources, particularly on lands of mixed ownership; providing public information through joint publications; joint cabin reservation systems; or construction, operation, and maintenance agreements.
 6. Consult FSM 2300 and internal Service-wide Handbooks.

II. *Integrated Resource Planning*

- A. During non-recreation project planning, assess the effects of these projects on the diversity and quality of recreation settings and activity opportunities within, and adjacent to, the project area.
 1. Where recreation resources may be affected, analyze the opportunities foregone due to resource management actions. During project planning and design, consider valid substitutes for recreation settings and activity opportunities.
- B. Identify opportunities to enhance existing, and provide additional, recreation activities, opportunities and services where desirable to meet local or Forest-wide recreation demands. Give particular attention to opportunities which: are in relatively short supply within the day-use travel distance of communities, are important to local users, are important to tourism and commercial service

Appendix B

providers, provide a base for visitor use of primitive and semi-primitive areas, compliment recreation programs of communities, the state, and private landowners, contribute to the supply of Semi-primitive Motorized opportunities, and those related to the unique combination of marine, wildlife, and fish resources characteristic of Southeast Alaska. Consider opportunities including, but not limited to:

- Additional public recreation cabins
 - Fish viewing, angling, and fishing access
 - Ice fishing
 - Fuelwood gathering
 - Wildlife viewing
 - Hunting
 - Interpretation of natural or cultural resources
 - Interpretation of management activities
 - Snowmobile and/or cross-country skiing and access
 - Access to beaches and other attraction features
 - Loop travel routes (roads, trails, and water routes)
 - Scenic marine and road travel corridors
 - Parking/camping places for recreation vehicles, bicyclists, and boaters
 - Resort and lodge opportunities to serve as visitor bases
- C. Coordinate, to the extent feasible, recreation project development with fish and wildlife habitat improvement, and road projects.
- D. Designate the Forest open to Off-Highway Vehicles (OHV) off of open roads unless site-specific closures are made. Wilderness areas are closed to OHV's except for snowmachines and for local traditional use of OHV's related to subsistence activities.
1. Coordinate Off-Highway Vehicle (OHV) planning and management with other resource concerns and adjacent landowners.
 2. Provide a diversity of OHV recreational opportunities across the forest where consistent with the criteria in FSM 2355, which includes:
 - a) The use is compatible with established land management and resource objectives.
 - b) The use is consistent with the capability and suitability of the resource.
 - c) There is demonstrated demand which cannot be better satisfied elsewhere.
 3. Review OHV plans and temporary designations implemented since the last review (consult 36 CFR 295). Develop other access and travel management plans by areas and/or districts as the need arises. Identify specific areas, roads, trails, and water surfaces that are open, restricted, or closed to

motorized and non-motorized mechanical conveyance, watercraft, and conditions of use. Recreation, subsistence, and authorized uses may be considered separately depending on the circumstances.

III. *Tourism*

- A. Tourism is a major industry in Southeast Alaska. The forest provides the backdrop as well as the land base for many tourism activities, including several of the state's leading attractions. The size and extent of the forest has a profound influence on the amount and nature of opportunities for the tourism industry.
 - 1. Work with the tourism industry and government agencies in assessing the value and contribution of the industry to the economy of Southeast Alaska. Identify the role and contribution made by the Tongass National Forest to the industry and the region.
 - 2. Cooperate with the tourism industry and appropriate government agencies in conducting and assessing visitor studies. These studies include: identification of activities, attractions, and attributes visitors seek; response to management activities; demographic traits; and, detection of changing trends.
 - 3. Coordinate information and marketing efforts with tourism providers and promoters to complement efforts, to target markets for new and existing opportunities, and to meet Forest Service management objectives.
 - 4. Work with government agencies, organizations, and the private sector to identify, facilitate, and develop tourism opportunities.
 - 5. Consider access, infrastructure, and other needs of the tourism industry at the project planning level. Incorporate these needs into project design and implementation.

Recreation Use Administration: REC122

I. *Coordination with Wilderness Management*

- A. Evaluate the effects of location, design, and operation of developed sites and roads adjacent to Wilderness. Develop and operate projects to complement wilderness management objectives and to avoid degradation of wilderness values.
- B. Ensure that special-use activities and facilities adjacent to Wilderness are located, designed, and operated in a manner which complements wilderness management objectives and that avoids degradation of wilderness values.

II. *Recreation Special Uses*

- A. Commercial Recreation Opportunities
 - 1. Work with recreation service partners and the tourism industry in identifying and developing services and opportunities. Recreation service partners provide services and opportunities that supplement the use and enjoyment of the national forests by a variety of people.
 - a) Identify opportunities for commercial recreation use, services, and developments.

Appendix B

- b) Facilitate authorizing commercial recreation use, services, and developments by:
 - (1) Authorizing commercial recreational developments and services where there is a public need, and no private lands are available or suitable for development. Refer to each Land Use Designation management prescription to determine its appropriateness for development.
 - (2) Managing recreation special uses in accordance with the direction in LAND 122 -Special-Use Authorizations (items A.1-13 apply to recreation special uses), and outfitter/guide services in this section.
 - (3) Working with recreation service partners to provide agency identity, customer information and programs, natural resource education, and to instill a land stewardship ethic.
- 2. Use the following guidelines in addressing the appropriateness of recreation special-use proposals in each of the Land Use Designations after evaluating factors in 1.b. above. They provide a framework to guide major and minor development proposals. Four strategies (not allowed, discouraged, case-by-case, compatible) are identified for guidance; one is assigned to each Land Use Designation to address major and minor proposals (see next page). The definitions and strategies applied to major and minor developments are as follows:

Major Development

Major recreation and tourism developments provided by the private sector involve long-term commitment of the land base, with a moderate to high level of site modification. They involve large buildings or complexes of buildings and facilities, and often provide several services in a concentrated area. Comfort and convenience are provided for guests, and facilities can generally accommodate more than 12 people. The proposals are typically Development Scale 3, 4, or 5, and Roaded Natural or Rural ROS settings. Site reclamation involves extensive removal of facilities and improvements, revegetation, recontouring, etc., and greater than 5 years to attain a natural appearance. Examples include destination resorts and lodges, food and beverage services, downhill ski areas, marinas and gas stations, and full service campgrounds.

Minor Development

Minor recreation and tourism developments provided by the private sector involve only minor site modifications. They involve small rustic facilities and/or improvements, generally with a single purpose or service, and may involve several sites or an extensive area. Basic essentials are typically provided, and can generally accommodate 12 or fewer people per site. The proposals are typically Development Scale 1 and 2, with a Semi-Primitive ROS setting. Site reclamation involves simple removal of facilities and little or no revegetation; a natural appearance can be attained in a few years. Examples include cabins, huts, small docks, cross-country ski trails with simple facilities, temporary or portable camps, and simple and rustic campgrounds.

Major and Minor Recreation-related Developments

	<i>Major</i>	<i>Minor</i>
Not Allowed	Wilderness Wilderness National Monument Research Natural Area Wild River	Wilderness Wilderness National Monument Research Natural Area
Discouraged	Nonwilderness National Monument Remote Recreation Municipal Watershed LUD II Experimental Forest	Municipal Watershed Experimental Forest
Case-by-Case	Special Interest Area Old-growth Habitat Scenic River Modified Landscape Timber production Minerals Transportation and Utility Systems	Nonwilderness National Monument Remote Recreation Special Interest Area Old-growth Habitat Wild River Modified Landscape Timber production Minerals Transportation & Utility System LUD II
Compatible	Semi-Remote Recreation Recreational River Scenic Viewshed	Semi-Remote Recreation Recreational River Scenic Viewshed Scenic River

Definitions

Not Allowed	Recreation special-use developments are not allowed by law or regulation or are not consistent with agency policy and regulations.
Discouraged	Recreation special-use developments are generally not consistent with the objectives of the Land Use Designation. Development proposals require scrutiny of magnitude and scope for LUD conformance.
Case-by-Case	Recreation special-use developments may be compatible with the LUD objectives depending upon the scope, purpose, and magnitude of the proposal. Proposals will be evaluated on a case-by-case basis.
Compatible	Recreation special-use developments are generally compatible with this LUD, and applicants are encouraged to examine these areas first where there is a public need and no private lands are available or suitable for development.

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3. When determined that a development or activity is suitable, use information in the following table in addressing the maximum amount of use for each facility or site in each Land Use Designation. The numbers in the table are guidelines; the actual numbers authorized could be larger or smaller depending on site-specific analysis. Refer to section 4.d)(3) in this section for allocation guidelines.

Maximum Recreation and Tourism Development Generally Allowed by LUD¹

Land Use Designation	Permanent Overnight Facilities (number of overnight guests)	Day-use Facilities (number of users per day)	Flight-based Sightseeing (number of landings per site per day)	Boardwalk Paths and Trails	Equipment Storage	Campgrounds (number of sites per campground – includes RV sites)
Wilderness	none ²	none	3 or 6 ^{3,4}	yes	none ²	none
Wilderness Monument	none ²	none	3 or 6 ^{3,4}	yes	none ²	none
Nonwilderness Monument	none ²	none	3 or 6 ^{3,4}	yes	none ²	none
Research Natural Area	none	none	none	none	none	none
Special Interest Area	case-by-case ⁵	case-by-case ⁵	case-by-case ⁵	case-by-case ⁵	case-by-case ⁵	case-by-case ⁵
Remote Recreation	10	24	10	yes	yes	none
Municipal Watershed	case-by-case	case-by-case	case-by-case	case-by-case	case-by-case	case-by-case
Old-growth Habitat	24	50	10	yes	yes	none
Semi-remote Recreation	24/150 ⁶	50/300 ⁶	10/100 ⁶	yes	yes	10/75 ⁶
LUD II	24	50	10	yes	yes	10
Wild River	10	24	10	yes	no	none
Scenic River	100	300	50	yes	yes	40
Recreational River	150	1,000	100	yes	yes	75
Experimental Forest	none	none	none	case-by-case	none	none
Scenic Viewshed	150	1,000	100	yes	yes	75
Modified Landscape	150	1,000	100	yes	yes	75
Timber production	150	1,000	100	yes	yes	75
Minerals	case-by-case	case-by-case	case-by-case	case-by-case	case-by-case	case-by-case

¹The actual numbers authorized could be larger or smaller depending on site-specific analysis

²Except for ANILCA exceptions

³Consistent with existing or adopted ROS class (3 for Primitive ROS, 6 in other ROS classes in wilderness)

⁴Public helicopter landings are currently prohibited (11/96). A separate analysis is being completed to determine whether helicopter landings are appropriate

⁵Must be compatible with Special Interest Area objectives

⁶First number is for most areas within the LUD and the second is for enclaves of recreation and tourism developments

⁷To allow for mine tours

4. Public Outfitter/Guide services

- a) Authorize the services of qualified outfitters and guides to the public where the need for the service has been identified and is compatible with the objectives and management direction of the affected Land Use Designations. The services of outfitters and guides should facilitate the use, enjoyment, understanding, and appreciation of National Forest recreation settings.
- b) Manage outfitter and guide services as partnerships with the Forest Service, as a way to nurture and encourage assistance and support for attaining the objectives of the Land Use Designation, and to assist in increased public understanding and appreciation of the Forest Service's mission and goals.
- c) Encourage skilled and experienced individuals, organizations, and companies to conduct outfitting and guiding activities in a manner that assures National Forest visitors receive quality services.
- d) Administer Outfitter/Guide special-use authorizations in accordance with the direction in FSM 2720, FSH 2709.11 and Regional Supplements.
 - (1) Outfitting and guiding operations should not require permanent improvements occupying National Forest System lands. Encourage operations which require only temporary facilities, easily removed at the end of the use season.
 - (2) Authorize outfitter/guide operations on the basis of the following criteria:
 - (a) The affected ecosystem(s) have the capability to accommodate the expected kinds of activities and amounts of use without degradation of ecosystem composition and structure.
 - (b) Existing or proposed operations and activities are appropriate for the specific ROS settings within the Land Use Designation.
 - (c) Adverse impacts to popular or highly-valued local areas with outfitter/guide operations are minimized.
 - (d) There is a demonstrated public need for the services to be offered and/or the services will enhance the objectives of the Land Use Designation.
 - (e) The operations can be carried out in a manner that is compatible with existing or expected use by the non-guided public.
 - (f) Adverse impacts to subsistence users are minimized.
 - (3) Authorize outfitter/guide operations through the issuance of priority use permits, whenever possible, supplemented with temporary permits. Assign priority use and temporary use permits within a Land Use Designation based on the following:
 - (a) Generally allocate no more than one-half the appropriate capacity of the Land Use Designation to outfitter/guide operations on an administrative area (Chatham, Stikine,

Ketchikan) basis. For specific locations, consider different allocations based on historical use, changing demand, spatial zoning, or temporal zoning.

(b) *Party size and distribution of groups.*

- (i) **Wilderness, Monument, and Wild River Land Use Designations, and Primitive ROS settings:** Generally consider a party size of no more than 12 persons for any one site or activity group. A higher group size may be authorized where it is desirable to have a higher guide/client ratio for safety purposes or youth groups.
- (ii) **Semi-primitive ROS settings outside of Wilderness:** Party size should generally be limited to 12-20 people. Within the LUD II, Old-growth Habitat, and Semi-Remote Land Use Designations, larger party sizes may be allowed in limited locations for up to 15% of the primary use season for nature-based interpretive activities if physical site conditions can tolerate it. Larger party sizes may be allowed to go ashore at one location and split up into smaller parties not within sight or sound of each other.
- (iii) **Other ROS settings:** Consider site capacities and impacts to other users and resource values to establish party size limits.

(4) Where there is surplus capacity not being used by the general public, temporary use for specific periods of time (not to exceed one year) may be authorized. Such temporary use does not qualify for credit toward priority use by a permit holder.

- e) Cooperate with state and local authorities and user organizations to resolve situations where illegal outfitters are known to be operating. (Consult FSM 5300.)

B. Non-commercial Recreation Uses

- 1. Issue no authorizations to construct new private recreation facilities, such as private recreation cabins.
- 2. Maintain non-commercial recreation special-use authorizations except as provided for in FSM 2347. Allow replacement of existing facilities with similar facilities.
- 3. Manage cabins and related structures which were existing, but unauthorized, prior to ANILCA (December 2, 1980), in accordance with the direction in LAND 122 - Cabins.
- 4. Manage recreation special uses in accordance with the direction in LAND122 - Special-Use Authorizations.

III. Recreation Settings

- A. Provide a broad spectrum of outdoor recreation opportunities in accordance with the existing capabilities of the National Forest as indicated by the ROS inventory, and in accordance with the ROS guidelines at the end of this section.

1. Manage recreation use in a manner that is compatible with the long-term objectives of the Land Use Designation. Maintain the capability of all Land Use Designations to provide appropriate quality recreation opportunities on a sustained basis.
 2. In Land Use Designations where non-recreation resource management activities are emphasized, manage to continue providing the current settings and opportunities until scheduled activities and practices cause a change in the ROS setting. When scheduled activities change the recreation setting, manage the new setting in accordance with the appropriate ROS guidelines.
- B. Manage recreation resource activities and facilities in accordance with the established Regional guidelines and the ROS guidelines at the end of this section or Wilderness-specific ROS guidelines approved by the Forest Service officer with delegated authority. All recreation planning and management activities will address the setting indicators. They are described by ROS class in the guidelines at the end of this section, and are defined as follows:
1. *Visual Quality* - The Visual Quality Objective (VQO) describes varying degrees of allowable alteration of the characteristic landscape in each ROS setting. The key to managing landscape character in each ROS setting is to apply the guidelines for the adopted Visual Quality Objective and the Scenery Forest-wide Standards & Guidelines. (Consult FSH 2309.22.)
 2. *Access* - Access includes the mode of transport used within the area and service levels of roads.
 3. *Remoteness* - Remoteness concerns the extent to which individuals perceive themselves removed from the sights and sounds of human activity. Remoteness criteria can be modified to conform to natural barriers, screening, vegetative cover, or topographic relief.
 4. *Visitor Management* - Visitor management includes both the regulation and control of visitor activities, as well as providing information and services to aid their enjoyment and use of an area. A major reason underlying participation in outdoor recreation is to get away from the controls and constraints of the everyday world. Care and sensitivity are exercised in the methods used to implement visitor management. In managing recreation places, resolving behavioral problems should be given a high priority. The presence of controls and the way in which they are implemented is as much a part of the recreation setting as the physical environment.

The type, level, and location of information provided to users can enhance or detract from the desired experience. Generally, on-site information is appropriate in the more developed ROS settings, while off-site sources are more appropriate in the more primitive ROS settings and Wilderness.

5. *On-Site Recreation Development* - On-site development refers to the scale and appropriateness of site modification and facilities. Design and location of site development activities should consider the following criteria:
 - a) *Extent of site development*. Is it limited to a few isolated locations or distributed throughout the area?
 - b) *Evidence of the activity*. Are proposed materials compatible with those found in the characteristic landscape? Will the activity meet the adopted Visual Quality Objective(s) of the Land Use Designation?

- c) *Complexity and scale of the activity.* Are the scale and complexity appropriate for the intended use and compatible with other structures and attributes of a site?
- d) *Purpose.* Are facilities for convenience and comfort, or safety and resource protection?
- e) *Development scale for recreation facilities.* Is the facility development scale compatible with the desired ROS class setting, in accordance with the following definitions?

Development Scale for Recreation Facilities

I. <i>Minimum site modification.</i>	Rustic/rudimentary improvements for site protection only.
II. <i>Little site modification.</i>	Rustic/rudimentary improvements for site protection and some comfort for user. On-land motorized access with some traffic controls.
III. <i>Moderate site modification.</i>	Facilities equally designed for resource protection and user comfort. Contemporary/rustic design of facilities. Interpretive services often informal, but on-site.
IV. <i>Site heavily modified.</i>	Some facilities strictly for user comfort and convenience of user. Roads hard surfaced with obvious traffic controls. High density units/acre.
V. <i>High degree of site modification.</i>	Facilities mostly designed for comfort and convenience of user. Flush toilets and electrical hook-ups common. Synthetic materials often used. Formal, sophisticated interpretive facilities available. Site often landscaped with exotic materials.

- 6. *Social Encounters* - The term social encounters refers to the number and type of other people met in the area, along travelways, or camped within sight or sound. They are generally measured by the number of parties an individual or group may encounter. A typical independent party consists of 3-4 people traveling as a social group. Guided or organization groups are typically larger.
- 7. *Visitor Impacts* - Visitor impacts refer to the affect of recreation use on other resources such as soil, vegetation, water, air, and wildlife. The management intent is not necessarily how to prevent human-induced change, but one of deciding how much change is acceptable, and the actions needed for control. In general, user expectations are for minimum signs of human-caused alterations at the primitive end of the ROS and more acceptance of alterations near the developed end. One method to reduce visitor impacts is through site hardening. Site hardening includes paving, barriers, campsites, trails, viewing platforms, etc.
- 8. Use the ROS charts at the end of this section in project planning and analysis, and as guidelines to establish appropriate levels of use, scale and kinds of facilities, Visual Quality Objectives, types of access, and services to meet local and Regional needs and desired recreation setting conditions.

IV. *Developed Site Management*

- A. Implement the Meaningful Measures process for quality recreation management.

V. Recreation Construction and Rehabilitation

- A. Provide development facilities appropriate to the ROS setting after determining that the private sector is not able or willing to meet the demand.
- B. Maintain cost-effective developed recreation facilities which complement non-Forest Service developments in the same community home range or service center area.
- C. Provide barrier-free, accessible facilities appropriate to the site development level and area ROS setting.
- D. Evaluate the location and need for recreation facilities which lie within identified 100-year flood plains as to the specific hazards and values involved with the site and its use. Thoroughly explore viable alternatives. (Consult FSM 2527.)
- E. Use the regional recreation capital investment process and criteria for the identification of recreation construction and reconstruction projects.

VI. Interpretive Services

- A. Provide an Interpretive Services Program that is designed to accurately and adequately develop an interest and understanding of the environments of the Forest and Southeast Alaska, and the mission of the Forest Service in managing the National Forest.
- B. Conduct on-site interpretive activities to a level consistent with Land Use Designation objectives.
- C. Assist visitors and users to understand the role of natural and cultural resources in the development of industry, heritage and culture in Southeast Alaska. Relate these roles to the rest of the state, Canada, and the nation.
- D. Promote visitor understanding of the National Forest System, Forest Research, and State and Private Forestry programs.
 - 1. Emphasize understanding of stewardship of public lands and their productivity through professional forest management with balanced use of natural resources.
 - 2. Develop Interpretive Services programs for all principal resource management programs. Information should emphasize the integration of management activities designed to achieve the goals and objectives developed for specific areas.
- E. Inform visitors of the distribution, differences, and roles of the Federal, state and private lands found in Southeast Alaska and the range of recreation and cultural interest opportunities and facilities available.
 - 1. Continue to pursue and implement cooperative interpretive partnerships with other Federal and state land management agencies consistent with the principal travel routes and activity centers used by forest visitors.
 - 2. Provide an array of imaginative and dynamic media by which interpretive messages are made available to the visitor. Use a spectrum of media and presentation designs that are appealing, appropriate for the setting, easily understood by the intended audience, and reflect the Forest Service as a professional and caring land management agency.

Appendix B

3. Continue to provide accurate and timely information about Southeast Alaska and the Tongass National Forest. Continue the Forest Service's leadership role for the Southeast Alaska Visitor Center in Ketchikan.
 4. Continue to provide or improve interpretive services programs and facilities such as those at Mendenhall Glacier, Centennial Hall (Juneau), and aboard the Alaska Marine Highway ferries. Support shall include identification of current issues and events of interest to forest visitors, adequate staffing to meet program objectives, assistance in training the seasonal and volunteer staff, and objective evaluation of programs to assure accurate and positive coverage of the natural and cultural resources on the Tongass National Forest and their management.
 5. Expand the use of the Alaska Natural History Association (ANHA) as an interpretive partner to provide forest visitors with a broad range of interpretive media. These may include, but are not limited to, publications, video and audio tapes, and other media that feature the natural and cultural resources of the Tongass National Forest and the heritage of Southeast Alaska. Encourage all types of support and donations to ANHA which can be used to develop additional materials and programs.
 6. In partnership with communities, organizations, and individuals, develop additional ANHA outlets at locations that will best serve Forest customers.
 7. Continue to support the Elderhostel Education Program in local communities and aboard the Alaska Marine Highway as budgets will allow.
- F. Provide a coordinated program of awareness and training for all employees, and partners (including outfitter/guides and other public service permit holders) to ensure a consistent program of public service.
1. Encourage other agency participation in Forest Interpretive Services training programs.
 2. Ensure that the Forest Service mission and image remain predominantly visible at all Forest Service facilities through the use of uniformed Forest Service personnel, the Forest Service shield, and other media.
 3. To the extent feasible, provide training about national forest resources, points of interest and management to all interested outfitter/guides, industry representatives and other partners.

VII. Recreation Use

- A. Gather recreation use information to use in project and forest planning. Many sources of information should be used to gather data, such as cabin permits, campground, and visitor center use, trailhead registers, dispersed sampling, outfitter/guides, ferry and cruiseship arrivals, and employee or public observations.
- B. Identify those recreation uses that may be in conflict with each other. Reduce recreation user conflicts and polarization. Work with affected publics in finding solutions to defuse or resolve conflicts or concerns.

ROS Class

Primitive

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed the Retention Visual Quality Objective. An Existing Visual Condition of Preservation is fully compatible and encouraged.
Access	Cross-country travel and travel on non-motorized trails and on waterways is typical. Use of airplanes, helicopters, motorboats and snowmachines for traditional activities, subsistence, emergency search and rescue, and other authorized resource management activities may occur but is rare.
Remoteness	No or infrequent sights and sounds of human activity are present. Setting is located more than 1.5 hours walking or paddling distance, or 3 miles, from any human developments other than infrequently-traveled marine travelways. Areas are generally greater than 5,000 acres, but may be smaller if contiguous with a Semi-primitive class.
Visitor Management	On-site regimentation and controls are very rare. Signing is limited to directional information and safety. There are no on-site interpretive facilities. There is great opportunity for discovery on the part of the users.
On-site Recreation Development	Structures do not exceed Development Scale I, except for public recreation cabins, and are maintained for appropriate levels of use.
Social Encounters	User meets less than 3 parties per day during trip. No other parties are within sight or sound of dispersed campsites or cabins. Maximum party size is generally 12 people.
Visitor Impacts	Visitor-caused impacts to resources are slight and usually not noticeable the following year. Site hardening is limited to boardwalk trails and necessary boat moorings or bearproof food caches and rustic public recreation cabins.

ROS Class

Semi-Primitive Non-Motorized

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed the Retention Visual Quality Objective. An Existing Visual Condition of Preservation is fully compatible and encouraged.
Access	Cross-country travel and travel on non-motorized trails is typical. Use of airplanes, helicopters, motorboats and snowmachines for traditional activities, subsistence, emergency search and rescue, and other authorized resource management activities may occur unless specifically restricted for safety and/or resource protection purposes.
Remoteness	Nearby sights or sounds of human activity are rare, but distant sights or sounds may occur. Setting is located more than ½ hour walk or paddle, or approximately ½ mile (greater or less depending on terrain and vegetation, but no less than ¼ mile) from: 1) infrequently traveled waterways; 2) roads and trails open to motorized recreation use, and 3) clearcut harvest areas. Aircraft access is only occasional. Areas are generally greater than 2,500 acres but may be smaller if contiguous with Primitive or Semi-primitive motorized classes.
Visitor Management	On-site regimentation and controls are rare. Visitor information facilities may be used to interpret cultural and natural resource features, but are not elaborate and harmonize with the setting.
On-site Recreation Development	Facilities and structures generally do not exceed Development Scale II and are maintained to accommodate the types and levels of use anticipated for the site. Forest Service recreation cabins are fully compatible.
Social Encounters	User meets less than 10 parties per day (6 parties per day in wilderness) on trails and waterways during 80% of the primary use season. No other parties are within sight or sound of dispersed campsites during 80% of the primary use season. Maximum party size is generally 12-20 people. Outside of wilderness, larger party sizes may occur during less than 15% of the primary use season in limited locations.
Visitor Impacts	Visitor-caused impacts to resources are rare and usually not long-lasting. Site hardening is limited to boardwalk trails, boat tramways, moorings and docks, bearproof food cache facilities and rustic public recreation cabins.

ROS Class

Semi-Primitive Motorized

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed the Partial retention Visual Quality Objective. Existing Visual Conditions ranging from Preservation through Retention are fully compatible and encouraged.
Access	Travel on motorized and non-motorized trails and Traffic Service Level D roads, although some Traffic Service Level C roads provide access to and through the area. Use by high clearance vehicles and motorized water travel is common. Road density is less than one mile per square mile. Off-road snowmachine travel on snow may occur.
Remoteness	Nearby sights or sounds of human activity are rare, but distant sights or sounds may occur. Setting is located within ½ hour walk or paddle or within ½ mile (greater or less depending on terrain and vegetation but no less than ¼ mile) of infrequently traveled waterways or small aircraft access points and/or roads which are open and maintained for passage by high clearance and four-wheel drive vehicles (Maintenance Level 2) and provide access to recreation opportunities and facilities. Areas are generally greater than 2,500 acres but may be smaller if contiguous with Primitive or Semi-Primitive Non-Motorized classes.
Visitor Management	On-site regimentation and controls are few. Control facilities consist primarily of informational signs and site-specific road closures. Visitor information facilities may be used to interpret cultural and natural resource features, but are not elaborate and harmonize with the setting.
On-site Recreation Development	Facilities and structures generally do not exceed Development Scale II and are maintained to accommodate the types and levels of use anticipated for the site and area. Forest Service recreation cabins are fully compatible.
Social Encounters	User meets less than 10 parties per day (6 parties per day in wilderness) on trails, roads, and shorelines during 80% of the primary use season. During 80% of the primary use season no other parties are visible from campsites. Maximum party size is generally 12-20 people. Outside of wilderness, larger party sizes may occur during less than 15% of the primary use season in limited locations.
Visitor Impacts	Visitor-caused impacts may be noticeable, but not degrading to basic resource elements. Site hardening is very infrequent, but, when it occurs, is in harmony with, and appropriate for, the natural-appearing backcountry setting.

ROS Class

Roaded Natural

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed the Modification Visual Quality Objective and typically is Partial retention. Existing Visual Conditions ranging from Preservation through Retention are fully compatible and encouraged.
Access	All forms of access and travel modes may occur. Access to and through the area is typically by passenger vehicle, although motorized use may be restricted to provide for resource protection, user safety, or to provide a diversity of recreation opportunity.
Remoteness	Remoteness is of little importance, but low to moderate concentrations of human sights and sounds are preferred. Setting is located within ½ mile (greater or less depending on terrain and vegetation but no less than ¼ mile) of moderate to heavily-traveled waterways and/or roads which are maintained to Levels 3, 4, and 5 and open for use by the public or those areas that receive heavy small aircraft travel.
Visitor Management	On-site regimentation and controls are obvious. Control facilities such as parking areas, barriers and signs harmonize with the natural environment. Visitor information facilities are not elaborate or complex.
On-site Recreation Development	Facilities and structures generally do not exceed Development Scale III and are maintained to accommodate the types and levels of use anticipated for the site and area. Typical facilities include outdoor interpretive displays and rustic campgrounds and picnic areas.
Social Encounters	User meets less than 20 other parties per day on trails and in dispersed areas, during at least 80% of the primary use season. User may meet numerous other parties on roads and developed recreation sites. Developed sites often are at full capacity but do not exceed 80% of the design capacity over the season of operation.
Visitor Impacts	Visitor-caused impacts are noticeable, but not degrading to basic resource elements nor do they exceed established Visual Quality Objectives. Site hardening may be dominant, but is in harmony with natural-appearing landscape and appropriate for the site and setting.

ROS Class

Roaded Modified

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed the Maximum Modification Visual Quality Objective. Apply visual management techniques to soften effects of maximum modification conditions in the foreground of sensitive travel routes and recreation sites.
Access	All forms of access and travel modes may occur, although roads are generally not well suited to highway-type vehicles. OHV use on designated routes or areas is encouraged. Use by high clearance vehicles is common.
Remoteness	Remoteness from urban conditions and high concentrations of other people is important. Low concentrations of human sights and sounds in a backcountry roaded setting are preferred. These areas are accessed by Forest roads which are maintained to Levels 2, 3, and 4 and are available for public use. They generally involve areas with timber management activities.
Visitor Management	On-site regimentation and controls are few. Control facilities are appropriate for the predominating backcountry roaded setting. Visitor information facilities may be used to interpret management activities, but are not elaborate and are appropriate for the setting.
On-site Recreation Development	Facilities and structures generally do not exceed Development Scale II and are maintained to accommodate the types and levels of use anticipated for the site and area.
Social Encounters	User meets less than 20 other parties per day on trails and in dispersed areas during at least 80% of the primary use season. Numerous other parties may be encountered on roads. Few, if any, other parties are visible at dispersed campsites.
Visitor Impacts	Visitor-caused impacts are noticeable, but not degrading to basic resource elements. Site hardening may dominate at campsites and parking areas, but is in harmony with, and appropriate for, backcountry roaded setting.

ROS Class

Rural

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed Modification in the Foreground and Maximum Modification in middleground.
Access	All forms of access and travel modes may occur, although access to and through the area is primarily by passenger vehicle. Road and trail surfaces are often hardened.
Remoteness	Remoteness is of little importance, and moderate to high concentrations of people and sights and sounds of human activity are acceptable when not continuous. Setting is located within 1/2 mile of heavily traveled roads and state highways or areas that receive heavy aircraft travel.
Visitor Management	On-site regimentation and controls are obvious. Control facilities such as parking areas, medians, and barriers harmonize with natural/exotic landscaping. Information and interpretive facilities may be complex and dominant on developed sites.
On-site Recreation Development	All Development Scales (I-V) are appropriate and maintained at intended standards necessary to accommodate the types and levels of use anticipated for the site and area. Facilities typically include visitor centers, major campgrounds, and other facilities for concentrated use.
Social Encounters	User may meet many (more than 20) other parties per day on trails, in dispersed areas, on roads, and in developed facilities. Developed sites often are at full capacity, but do not exceed 80% of the design capacity over the operating season.
Visitor Impacts	Visitor-caused impacts are noticeable, but not degrading to basic resource elements nor do they exceed established Visual Quality Objectives. Site hardening may be dominant, but is in harmony with natural/exotic landscape and appropriate for the site and setting.

ROS Class

Urban

Setting Indicators	Standards and Guidelines
Visual Quality	Not to exceed the Modification Visual Quality Objective in the foreground and Maximum Modification in middle ground.
Access	Access and travel facilities are highly intense, motorized and often with mass transit supplements.
Remoteness	Remoteness is not important. High concentrations of people, and sights and sounds of human activity are acceptable.
Visitor Management	Intensive on-site controls are numerous and obvious. Information and interpretive facilities may be complex and dominant.
On-site Recreation Development	All Development Scales (I-V) are appropriate and maintained at intended standards necessary to accommodate the types and levels of use anticipated for the site and area. Synthetic materials are commonly used. Facility design may be highly complex and refined, but in harmony or complimentary to the site. Facilities typically include visitor centers, major campgrounds and other facilities for concentrated use.
Social Encounters	Interaction between large numbers of users is high. Sites often are at full capacity, but do not exceed 80% of the design capacity over the operating season.
Visitor Impacts	Visitor-caused impacts are noticeable, but not degrading to basic resource elements or exceed established Visual Quality Objectives. Site hardening may be dominant, but is in harmony with natural/exotic landscape and appropriate for the site and setting.

Subsistence Forest-wide Standards and Guidelines (Sub)

The forest-wide standards and guidelines for subsistence are as follows:

Subsistence: SUB

I. *Subsistence*

- A. In accordance with Title VIII of the Alaska National Interest Lands Conservation Act of 1980, it is the policy of the Forest Service that:
 1. Consistent with the purposes for which National Forest System lands in Alaska were established, sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the National Forest System lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence.
 2. Provide for the continuation of the opportunity for subsistence uses by rural Alaskan residents, including both Natives and non-Natives.
 3. Non-wasteful subsistence uses of fish and wildlife shall be the priority consumptive uses of such resources on National Forest System lands in Alaska when it is necessary to restrict the taking of such resources.
 4. Cooperate with adjacent landowners and land managers in managing subsistence activities and in maintaining the continued viability of all wild renewable resources on National Forest System lands.
- B. Consult the Southeast Alaska Federal Subsistence Regional Advisory Council for opinions and recommendations on current and proposed management actions, pursuant to ANILCA, Title VIII, Section 805.
- C. Locate and manage Forest management activities considering impacts upon rural residents who depend upon subsistence uses of the resources of National Forest System lands. In compliance with ANILCA, Title VIII, Section 810, and the Region 10 Subsistence Handbook, the Forest Service shall:
 1. In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of National Forest System lands, evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of National Forest System lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit or other use, occupancy, or disposition of such lands which may significantly restrict subsistence uses shall be effected until the following actions are accomplished:
 - a) Notice is given to the appropriate Federal and State agencies, local committees, recognized Tribal Governments, and the Southeast Federal Subsistence Regional Advisory Council established pursuant to Section 805 of ANILCA;
 - b) Notice of a hearing is given and a hearing is held in the vicinity of the area involved;
 - c) A determination is made that: 1) such a significant possibility of a significant restriction of subsistence uses is necessary, consistent with

sound management principles for the utilization of the public lands; 2) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and 3) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

2. If required to prepare an environmental impact statement pursuant to the National Environmental Policy Act, the notice and hearing and findings required in 1 above shall be a part of such environmental impact statement.
3. Regardless of whether or not an EIS is required, in all project scoping, include initial and on-going contact with the appropriate Federal and State agencies, local committees, recognized Tribal Governments, and the Southeast Federal Subsistence Regional Advisory Council.
4. After compliance with the procedural requirements of Section 810 of ANILCA and other applicable law, the responsible Forest Service official may manage or dispose of public lands under their primary jurisdiction for any of those uses or purposes authorized by ANILCA or other law. Management to accommodate identified subsistence uses could include:
 - a) Implement planned project;
 - b) Canceling all or part of the planned project;
 - c) Substituting another site for the project and prepare another environmental analysis if the change is significant;
 - d) Implementing appropriate mitigation measures.
- D. Evaluate changes in subsistence use patterns and activities in cooperation with appropriate state and Federal agencies by conducting periodic surveys of wildlife populations and subsistence harvest and consulting with subsistent user groups (note: see Appendix B, listing of priority research items).
- E. Make recommendations for subsistence regulations to the Southeast Alaska Federal Subsistence Regional Advisory Council and the Federal Subsistence Board and provide technical support to these two bodies for analyzing the effects of proposed regulations on Federal Public Lands under Forest Service Jurisdiction.
- F. Provide for enforcement of subsistence use regulations promulgated by the Federal Subsistence Board.
- G. Provide public information concerning subsistence management on National Forest System lands.
- H. In cooperation with appropriate state and Federal agencies, and recognized Tribal Governments, maintain a subsistence research program and data base.
- I. Maintain reasonable access to subsistence resources as required by ANILCA, Section 811. Address subsistence concerns when developing road management objectives (RMO's) for forest roads. (See Transportation Forest-wide Standards & Guidelines.)
- J. Seek to maintain abundance and distribution of subsistence resources necessary to meet subsistence user needs.

- K. Consider subsistence users' needs in the scheduling, locating, and designing of fish and wildlife habitat improvement projects.
- L. In the development of access and facilities, seek opportunities to provide for subsistence users (for example, anchorages and shelters). Such access and facility opportunities should be identified and planned with local subsistence users.

Threatened, Endangered, and Sensitive Species Forest-wide Standards and Guidelines (TE&S)

The forest-wide standards and guidelines for threatened, endangered, and sensitive species are as follows:

Threatened, Endangered and Sensitive species: TE&S

I. *Threatened or Endangered Species*

- A. Meet the requirements of the Endangered Species Act, as amended.
 - 1. Ensure that projects funded, authorized, or permitted by the Forest Service do not jeopardize the continued existence of threatened or endangered species. Use informal and formal consultation (for listed species) procedures, and conference (for formally proposed species) procedures (whichever is appropriate) with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service for all major construction activities and other forest management activities which may have an effect on federally-listed threatened, endangered, or proposed species population, or critical habitat. Prepare biological assessments or evaluations, as required, for species that may be affected by management activities (Consult FSM 2670).
 - 2. Identify, manage, and protect essential and critical habitats to meet legal requirements and recovery objectives for species that are federally-listed as threatened or endangered. Implement national and regional Forest Service policy and direction for management of threatened, endangered, and proposed species (Consult FSM 2670.)
 - 3. Support monitoring, research, and inventory work for threatened, endangered, and proposed species. Coordinate with appropriate Federal and state agencies. Use "challenge cost share," Sikes Act agreements, "Section 6 Grants" (under authority of the Endangered Species Act), and other partnerships.
 - 4. Conserve habitats for species tending toward federal listing to preclude the need for listing and additional protection under the Endangered Species Act. Meet this objective by implementing the following interagency memorandums of understanding:
 - a) National Memorandum of Understanding between the U.S. Department of Agriculture Forest Service, U.S. Department of Interior Fish and Wildlife Service, Bureau of Land Management, and National Park Service and the U.S. Department of Commerce National Marine Fisheries Service, and International Association of Fish and Wildlife Agencies (January 25, 1994, 94-SMU-058 as amended). The purpose of the MOU is to establish a framework for the conservation of species that are tending toward federal listing.

b) Regional Memorandum of Understanding that is tiered to the National MOU (a. above) entered into between the Forest Service, Alaska Region, Fish and Wildlife Service, Alaska Region, and Alaska Department of Fish and Game (December 20, 1994 as amended).

(1) The objective of this MOU is to promote interagency cooperation in the conservation of species tending toward listing under the Federal or State Endangered Species Acts.

(2) Cooperators shall meet at least annually to assess implementation of the MOU and success in meeting MOU objectives.

B. Steller Sea Lion

1. Protect Steller sea lion habitats.
2. Ensure that Forest Service funded, permitted or authorized activities are conducted in a manner consistent with the requirements, consultations, or advice received from the appropriate regulatory agencies for the Marine Mammal Protection Act (MMPA), the Endangered Species Act, and National Marine Fisheries Service guidelines for approaching seals and sea lions. "Taking" of sea lions is prohibited; "taking" includes harassing or pursuing or attempting any such activity.
3. Locate facilities, camps, Log Transfer Facilities, campgrounds and other developments 1 mile from known haulouts, and, farther away, if the development is large.
4. Cooperate with state and other federal agencies to develop sites and opportunities for the safe viewing and observation of sea lions by the public. Maintain a public education program explaining forest management activities related to sea lions in cooperation with state and other federal agencies.

C. Humpback Whale

1. Provide for the protection and maintenance of whale habitats.
2. Ensure that Forest Service permitted or approved activities are conducted in a manner consistent with the Marine Mammal Protection Act, the Endangered Species Act, and National Marine Fisheries Service regulations for approaching whales, dolphins, and porpoise. "Taking" of whales is prohibited; "taking" includes harassing or pursuing or attempting any such activity.

D. American Peregrine Falcon

1. Provide for the protection and maintenance of habitats for migrating American peregrine falcons.
2. Obtain increased understanding and knowledge about the migration of American peregrine falcons through southeast Alaska (for example the timing of migrations, the length of stay in southeast Alaska, important foraging areas, important prey items, etc.).
3. Protect seabird rookeries and waterfowl concentration areas that provide important prey foraging habitat (see Wildlife Forest-wide Standards & Guidelines).

II. *Sensitive species*

- A. Implement national and regional Forest Service policy and direction for the conservation and management of sensitive species and subspecies of animals and plants (including identified and unique fish stocks and plant varieties). Sensitive species are those taxa identified by the Regional Forester for which a viability concern has been identified due to a predicted or documented downward trend in species populations or habitat and where continued downward trends in population or habitat capability may lead to local or forest-wide extirpation, federal listing under the ESA, or both.
- B. Maintain habitat to support well-distributed viable populations of sensitive species throughout the recent range of the species by avoiding or minimizing impacts to species whose viability has been identified as a concern.
 1. Where desirable, implement habitat improvement projects to increase habitat capabilities and expand species distributions.
 2. Where necessary to achieve species conservation objectives, protect important habitats.
- C. Identify research and information needs for known or suspected sensitive plants and animals.
- D. Identify and consider the conservation of representative rare plant communities (e.g., communities that only exist on only one or limited areas of the Forest) during project planning.
- E. Support monitoring, research, and inventory work for sensitive species. Coordinate with appropriate Federal and state agencies. Use "challenge cost share," Sikes Act agreements, "Section 6 Grants" (under authority of the Endangered Species Act), and other partnerships.
- F. Sensitive species lists shall be reviewed periodically to consider new information to reflect the best available information regarding viability concerns.
- G. Prepare a biological evaluation as part of the NEPA process for each project authorized, funded, or conducted on National Forest System lands to evaluate and disclose the potential impacts of proposed activities on sensitive species.
 1. Consult FSM 2670 and R10 protocols for comprehensive elements and standards for the preparation of biological evaluations. The biological evaluation shall be of sufficient detail to determine how a proposed action may affect sensitive species.
 2. The need for and extent of field surveys to develop a biological evaluation should be considered in relation to the possible risks associated with the project, the species involved, and the level of knowledge already on hand. The intensity and scope of inventories should be commensurate with the potential risk of a proposed project on sensitive species.
 3. Survey sensitive plants according to the following guidelines as determined by the potential risks of proposed actions:
 - a) Survey intensity level guidelines for sensitive plant inventories:
 - (1) LEVEL 1. Field Check: Survey the area with a quick 'once-over' but do not walk completely through the project area. The entire project area is not examined.

- (2) LEVEL 2. Cursory: Survey the area with a 'once-over' by walking through the project area. The entire project area is not examined.
 - (3) LEVEL 3. Limited Focus: Survey to closely examine one or more habitat-specific locations within the project area, but do not look at the rest of the area.
 - (4) LEVEL 4. General: Survey with more intensity by walking through the project area and walking around the perimeter of the area or by walking more than once through the area. Most of the project area is examined.
 - (5) LEVEL 5. Intuitive Controlled: Survey by conducting a complete examination of specific areas of the project after walking through the project area and perimeter or by walking more than once through the area.
 - (6) LEVEL 6. Complete: Survey throughout the area until nearly all of the area has been examined.
- b) Conduct plant surveys using the "timed meander" technique at a time of the year when sensitive plants are identifiable.
 - c) Plant surveys should be conducted by individuals able to make positive field identification of sensitive plant species.
- 4. The biological evaluation will disclose the potential impacts of proposed activities on sensitive species. Consider the direct, indirect and cumulative effects of the proposed action on the population and the likelihood that adverse effects will occur.
 - 5. If a biological evaluation concludes that a project may have an adverse effect on a sensitive species or its habitat, consult with appropriate state and federal agencies to consider mitigation measures to reduce possible effects. These measures include avoiding cumulative impacts that would contribute to further population or habitat declines and the possible need for federal listing.
 - 6. Document the determinations from the biological evaluation in the NEPA decision documentation. Where NEPA documentation is not prepared, document the determination in the project files.
- H. Exchange records and information with appropriate organizations and state and Federal agencies on the status of populations and habitat.
 - I. Sensitive species habitat conservation. The following site specific habitat management standards provide guidance for management of locally important habitats for sensitive species but independently do not necessarily represent a comprehensive management strategy to meet conservation objectives. At the project level, monitor habitat management activities to:
 - 1. Ensure standards are implemented as prescribed.
 - 2. Evaluate whether habitat management standards are achieving conservation objectives.

Appendix B

- J. Northern Goshawk (including the Queen Charlotte goshawk subspecies).
1. Preserve nesting habitat around all confirmed and probable goshawk nests whether or not they are currently occupied.
 - a) Consider the following evidence for determining confirmed or probable nest sites:
 - (1) a goshawk observed on or near a nest;
 - (2) nestlings or branchers (young not able to fly) observed on or near a nest;
 - (3) goshawk feathers or eggs obtained from the nest
 - (4) one or more nest structures indicative of goshawk were found with goshawk prey remains, but without positive identified goshawk on the nest and without positive identified feathers from nest;
 - (5) aggressive, territorial breeding season adults vocalizing or attacking an observer (with or without locating a nest);
 - (6) adults observed during the breeding season in a territory and recently fledged young were observed (with or without locating a nest).
 - b) Nesting Habitat: Maintain an area of not less than 100 acres of productive old-growth forest (if it exists) generally centered over the nest tree or probable nest site. Attempt to include prey handling areas, perches, roosts, inactive nest stands, hiding cover and foraging opportunities for young goshawks. Vegetative structure should include a multi-layered, closed (over 60%) forest canopy, a relatively open understory, with large trees (usually 20+ inches DBH) and low ground vegetation. These conditions generally equate to the high timber volume strata used in preparation of this Plan.
 - c) Management: No commercial timber harvest is permitted. Existing roads may be maintained. New road construction is permitted if no other reasonable roading alternatives outside the mapped nesting habitat exist. Permit no continuous disturbance likely to result in nest abandonment within the surrounding 600 feet from March 15 to August 15. Activity restrictions are removed for active nests that become inactive or unsuccessful. Other management activities which maintain the integrity of the forest stand structure are consistent with the objectives for this area. Activities such as cabin, trail, or campground construction should be consistent if designed with minimal vegetative manipulation.
 2. Cooperate and coordinate with state and other Federal agencies to understand the life history requirements and distribution of the northern goshawk.
 3. Conduct inventories to determine the presence of nesting goshawks for proposed projects. Use the most current inventory protocols developed in cooperation with the appropriate state and Federal agencies.
 4. The objective is to manage goshawk foraging habitat (productive old-growth forest) to retain important features of forest stand structure in areas of timber harvest in Value Comparison Units (VCU's) on Prince of Wales Island

where over 33 percent (as of the date of this Forest Plan's approval) of the productive old-growth forest has been converted to young conifer stands (e.g., harvested since 1954).

- a) Timber harvest units over 2 acres in size should meet the following forest stand structural characteristics after harvest:
 - (1) An average of over 30 percent canopy closure throughout the timber harvest unit.
 - (2) An average of at least 8 large trees/acre (20- to 30-inch DBH or greater). Where not available substitute the next largest trees.
 - (3) An average of at least 3 large decadent (dead or dying) trees/acre (20- to 30-inch diameter at the large end). Where not available substitute the next largest decadent trees.
 - (4) Remaining trees should be uniformly distributed throughout the stand, but trees may be clumped for operational concerns or ecological opportunities.
 - (5) Retained trees should have a reasonable assurance of windfirmness.
- b) For timber harvest units less than 2 acres in size, allow full canopy removal but limit the number of openings to an equivalent of 25 percent of the stand removed every 50 years (e.g., 12-13, 2-acre openings; 25, 1-acre openings, etc. within a 100-acre stand).
- c) Local information from Southeast Alaska may be used to accomplish the goshawk habitat objectives by employing different specific methods than those listed in sections a) (1-5) above. Document the analysis to use other specific methods through the NEPA process. Such local information could consist of some or all of the following:
 - (1) Habitat relationships information on the structure of forest stands used and selected by goshawks for various life functions.
 - (2) The amount and distribution of old-growth foraging habitat that will be protected through land allocations or standards and guidelines (e.g., habitat reserves, riparian buffers, beach fringe corridors, etc.) that maintain the integrity of the old-growth forest and the known or inferred goshawk population response of that combination of protected habitats.
 - (3) The response of goshawk populations to the configuration of habitat at the landscape scale.

K. Peale's Peregrine Falcon

1. Provide for the protection and maintenance of Peale's peregrine falcon habitat.
2. Maintain nest site location data in cooperation with the U.S. Fish and Wildlife Service.
3. Plan project activities to avoid adverse impacts to the falcons and their habitats. Evaluate the effects of proposed projects within two miles of known falcon nests considering such items as: a) human activities (aircraft, ground and water transportation, high noise levels, and permanent facilities)

Appendix B

which could cause disturbance to nesting pairs and young during the nesting period April 15 - August 31; b) activities or habitat alterations which could adversely affect prey availability. Coordinate all project activities that may affect known or potential nesting habitat with the U.S. Fish and Wildlife Service.

4. Within 15 miles of all known or historical nest sites, prohibit all use of herbicides and pesticides.

L. Trumpeter Swan

1. Provide for the protection and maintenance of trumpeter swan habitats.
2. Avoid disturbance of trumpeter swans, particularly during nesting, brood-rearing, and wintering periods, to prevent abandonment of their nests, brood-rearing areas, and winter habitats. As a general guideline, limit developments within 0.5 mile (2,640 feet) of wetlands used by nesting, brood-rearing, and wintering trumpeter swans. The District Ranger will take feasible measures to minimize disturbance.
3. Avoid placement of overhead wires, fences, or other structures which could interfere with the flight paths of swans and cause injury or mortality.
4. Cooperate with state, Federal, and local agencies, partner organizations, and individuals to develop sites and opportunities for the safe viewing of trumpeter swans by the public and maintain a public education program explaining Forest management activities related to trumpeter swans.

M. Osprey

1. Maintain and improve osprey populations and habitat.
2. Establish a minimum 330-foot radius habitat management zone around each existing osprey nest tree. Determine the exact boundary based on local topography, timber type, a reasonable assurance of windfirmness, and other factors.
3. Within the osprey nest zones, prohibit all land use activity which would likely disturb nesting osprey. Infringement may be acceptable depending on the nature of the project and timing of the activity.
4. Maintain the osprey nest zone even though the nest or nest tree becomes inactive.
5. Provide trees suitable for use by osprey for nesting, feeding and perching. Consider the following:
 - a) Reserve trees and live trees that dominate or co-dominate a shoreline.
 - b) Reserve trees with broken tops and live trees with branches large enough to support birds.
6. New nests will receive the same level of management protection as existing nests, however, osprey which select new nests in close proximity to existing human activities will not cause those human activities to be modified.

N. Island King Salmon

1. Provide for the protection and maintenance of runs of king salmon that naturally occur on islands including the runs in King Salmon and Wheeler creeks on Admiralty Island.
2. Coordinate with the Alaska Department of Fish and Game and National Marine Fisheries Service on commercial, sport and subsistence fish use, hatchery egg take programs, and other activities affecting the viability of king salmon runs in order to conserve these unique populations.
3. Avoid the placement of facilities or issuing permits for activities near these streams that would increase harvest pressure on these king salmon runs.
4. Coordinate with other groups or Federal and state agencies to develop a program of study to understand the life history and genetic characteristics of these unique runs of king salmon.

O. Northern Pike

1. Provide for the protection and maintenance of northern pike found in the Pike Lakes on the Yakutat Forelands. This population of northern pike is unique to Southeast Alaska.
2. Avoid the placement of facilities near the Pike Lakes which would increase harvest pressure to the point where the viability of these species is affected.
3. Coordinate with the Alaska Department of Fish and Game on any activities that would affect the viability of the northern pike.
4. Coordinate with other groups or Federal and state agencies to develop a program of study to understand the life history and genetic characteristics of this unique population of northern pike.

P. Fish Creek Chum Salmon

1. Provide for the protection and maintenance of chum salmon in Fish Creek near Hyder. This population of chum salmon is characterized by their extraordinary large size.
2. Coordinate with the Alaska Department of Fish and Game and the National Marine Fisheries Service on commercial, sport and subsistence fish use, hatchery egg take programs, and other activities affecting the viability of the chum salmon runs in Fish Creek in order to preserve these populations.
3. Coordinate with other groups or Federal and state agencies to develop a program of study to understand the life history and genetic characteristics of this run of chum salmon.
4. Provide for habitat improvement and maintenance to maintain the viability of this run of salmon, as necessary.

Q. Sensitive Plants

1. Provide for the conservation of habitats that support populations of sensitive plant species to maintain representative populations across all islands or all terrestrial landscapes throughout their range.
2. Permits may be issued to collect sensitive plants or plant parts or plant parts for legitimate scientific or educational purposes. Such collections must not

adversely affect the continued existence or vigor of a plant population. Sensitive plants shall not be collected for commercial use.

3. No herbicide may be applied from the air within 600 feet, nor ground-applied within 60 feet, of any identified population of a sensitive plant species.

III. *Candidate Species*

- A. Candidate species are defined as those species for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to support proposals for listing as threatened or endangered under the Endangered Species Act.
- B. Implement national and regional Forest Service policy and direction for the habitat management of candidate species.
- C. Coordinate with the U.S. Fish and Wildlife Service in the conservation and management of candidate species consistent with the objectives of the Interagency Memorandum of Understanding to prevent the need for Federal listing and protection under the Endangered Species Act.
- D. Contact the U.S. Fish and Wildlife Service for the most recent list of Candidate species and Species of Concern during initial phases of project development.

Wildlife Forest-wide Standards and Guidelines (Wild 112)

The forest-wide standards and guidelines for wildlife are as follows:

Wildlife Habitat Planning: WILD112

I. *Coordination/cooperation with other Agencies, Institutions and Partners*

- A. Coordinate with the Alaska Department of Fish and Game, other state agencies, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, tribal governments, and other cooperators and partners during the planning of activities that may affect wildlife.
 1. Each administrative area should meet at least annually with state and Federal wildlife agencies to review resource activities, present progress reports on implementation of past cooperative work or agreements, and schedule cooperative work.
 2. Seek to maintain memoranda of understanding with appropriate state, Federal, and local agencies and associations.
- B. Emphasize management for indigenous wildlife species and natural habitat except in cases where the Forest Service, in cooperation with the Alaska Department of Fish and Game and U.S. Fish and Wildlife Service, find desirable alternatives. Special consideration should be given to the possible adverse impacts on habitat of sensitive, threatened, and endangered species.
- C. Coordinate wildlife habitat surveys, studies, plans and improvement projects with the Alaska Department of Fish and Game, U.S. Fish and Wildlife Service, and other appropriate state, Federal, tribal, local and private agencies. Use the Sikes Act authorities for cooperative work with the state. Use agreements and other partnerships to cooperate with other partners.

- D. Coordinate with the Alaska Department of Fish and Game in development of state strategic plans and population goals and objectives for wildlife species and attempt to incorporate wildlife goals and objectives into forest management.
- E. Provide habitat information to the Alaska Department of Fish and Game to assist in correlating hunting seasons, permits, and bag limits to on-the-ground habitat conditions so that population and habitat objectives can be achieved.

II. *General Habitat Planning/Coordination*

- A. Recognize as wildlife habitat, areas of land and water which can contribute to achieving wildlife objectives for consumptive and non-consumptive uses.
- B. Provide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable introduced species well-distributed in the planning area. (Consult 36 CFR 219.19 and 36 CFR 219.27.)
- C. Cooperate with the State and, as appropriate, the U.S. Fish and Wildlife Service in managing vehicle, boat, and other human use (e.g. hunting and fishing seasons and bag limits) as necessary to achieve wildlife objectives, recognizing the access provisions of ANILCA. Emphasize management to reduce human disturbance in high value habitat areas and during critical periods of wildlife use.
- D. Maintain an Area program schedule which includes anticipated wildlife habitat and population inventory needs, monitoring requirements and proposed habitat improvement and maintenance projects.
- E. Use forest plan management indicators to evaluate the potential effects of proposed management activities affecting wildlife habitat. (Consult Forest Service Manual 2620.)
- F. Develop interagency habitat capability models for any or all of the management indicators to systematically assess the impacts of proposed projects during project level analysis. Periodically review and update models to reflect the most current habitat relationships and habitat modeling technology.
- G. Cooperate with the Alaska Department of Fish and Game to seek to prevent existing populations of non-indigenous species from dispersing into Wilderness areas. Address issues regarding management, introduction, and re-introduction of wildlife species consistent with National and Regional Policy.
- H. When population or habitat declines for a plant or animal species or subspecies indicates that long-term persistence is at risk, evaluate the particular species for designation as a Regional Sensitive Species by the Regional Forester. (See Threatened, Endangered & Sensitive Species Forest-wide Standards & Guidelines.)

III. *Habitat Improvement Planning*

- A. Identify habitat improvement projects to meet wildlife habitat and population objectives.
 - 1. Consider the following factors to assess habitat improvement project opportunities and priorities:
 - a) To meet state wildlife population objectives.
 - b) To meet subsistence use needs.

- c) Existing habitat in poor condition compared to its potential.
 - d) Habitat with a history of receiving high levels of use.
 - e) Treatments with a favorable benefit/cost ratio.
2. Use silvicultural practices, where applicable, to accomplish wildlife habitat objectives.

IV. *Sitka Black-tailed Deer Habitat*

- A. Identify important deer winter range before or as part of project analysis.
- B. Assure interdisciplinary involvement and consideration of deer winter range in project planning and in the environmental analysis process.

V. *Bald Eagle Habitat*

- A. The Bald Eagle Protection Act provides for special management for the bald eagle. Manage bald eagle habitat in accordance with the Interagency Agreement established with the U.S. Fish and Wildlife Service to maintain habitat to support the long-term nesting, perching, and winter roosting habitat capability for bald eagles. Coordinate with the U.S. Fish and Wildlife Service for bald eagle habitat management.

VI. *Bear Habitat Management*

- A. Continue to implement strategies, in cooperation with the Alaska Department of Environmental Conservation, Alaska Department of Fish and Game, cities, and boroughs, which prevent habituation of bears to human foods/garbage and reduce chances of human/bear incidents. Strategies that can be used to reduce human/bear incidents include:
 - 1. Phasing out and rehabilitating any remaining open garbage sites on National Forest land. Establish timetables for phase out and rehabilitation in cooperation with appropriate state agencies (also see Lands Forest-wide Standards & Guidelines on sanitary landfills).
 - 2. Requiring incinerators and/or other bearproof garbage disposal methods at work camps, recreation sites, administrative and research facilities, and Special Use Authorizations in bear habitats.
 - 3. Where feasible, locating seasonal and permanent work camps, recreation facilities, mineral exploration and operational facilities, Log Transfer Facilities, where allowed by the Land Use Designation, more than 1 mile from sites of important seasonal bear concentrations to reduce chances of bear-human confrontations.
 - 4. On Forest Service approved projects and Special Use Authorizations in brown bear habitat, minimizing adverse impacts to the habitat and seeking to reduce bear-human conflicts. Specific plans could include seasonal restrictions on activities and other measures determined on a case-by-case basis.
 - 5. Maintaining an aggressive public education program on bear behavior to reduce the number of human/bear incidents.
 - 6. Requiring storage of human food in ways to make it unavailable to bears to reduce habituation of bears and reduce human/bear incidents,

- B. During project planning, evaluate the need for additional protection of important brown bear foraging sites (e.g., waterfalls used as fishing sites) in addition to the buffers already provided by the Riparian and Beach & Estuary Fringe Forest-wide Standards & Guidelines, and the Old-growth Habitat and other natural setting Land Use Designations. Establish forested buffers, where available, of approximately 500 feet from the stream at sites where, based upon the evaluation, additional protective measures are needed to provide cover among brown bears while feeding, or between brown bears and humans. This may be especially important on Class I anadromous fish streams within the Moderate Gradient/Mixed Control and Flood Plain process groups (see Appendix D) where a large amount of bear feeding activity on salmon occurs. Consider the combination of bear foraging behavior, stream channel types, and adjacent landform to help identify probable important feeding sites. Consult the Alaska Department of Fish and Game in identifying and managing important brown bear foraging sites.
- C. Manage human/bear interactions to limit brown bear mortality from both illegal kills and defense of life and property. Work with the Alaska Department of Fish and Game to develop and implement a brown bear management program which considers both access management and season and bag limits to manage brown bear mortality rates within sustainable levels.
- D. Manage road use where concentrations of brown bear occur to minimize human/bear interactions and to help ensure the long-term productivity of brown bears. To meet this direction, develop and implement road management objectives through an interdisciplinary process (see Transportation Forest-wide Standards & Guidelines).
- E. Cooperate with the State to develop sites for safe public brown bear viewing opportunities.

VII. *Marine Mammal Habitats*

- A. Provide for the protection and maintenance of harbor seal, Steller sea lion and sea otter habitats.
 - 1. Ensure that Forest Service permitted or approved activities are conducted in a manner consistent with the Marine Mammal Protection Act (MMPA), the Endangered Species Act, and National Marine Fisheries Services guidelines for approaching seals and sea lions. Consult with the appropriate agency for identification of critical timing events, such as molting, parturition, etc., and recommended distances to avoid disturbances. "Taking" of marine mammals is prohibited; "taking" includes harassment (adverse disturbance), pursuit, or attempting any such activity.
 - 2. Locate Forest Service authorized and approved facilities and concentrated human activities as far from known marine mammal haul outs, rookeries and known concentration areas as feasible to meet the Alaska Coastal Management Program (ACMP) consistency requirements and MMPA. The following distances are provided as general guidelines for maintaining habitats and reducing human disturbance:
 - a) Locate camps, Log Transfer Facilities, campgrounds and other developments (where allowed by the Land Use Designation) 1 mile from known haul outs, and farther if the development is large.

- b) Forest Service permitted or approved activities will not intentionally approach within 100 yards, or otherwise intentionally disturb or displace any hauled-out marine mammal.
- c) Dispose of waste oil and fuels off-site as regulated by the Alaska Department of Environmental Conservation.
- 3. Cooperate with the State and other Federal agencies to develop sites and opportunities for the safe viewing and observation of marine mammals by the public. Maintain a public education program explaining forest management activities related to marine mammals in cooperation with state and other Federal agencies.

VIII. *Seabird Rookeries*

- A. Provide for the protection and maintenance of seabird (marine bird) rookeries.
 - 1. Locate facilities and concentrated human activities requiring Forest Service approval as far from known seabird colonies as feasible consistent with the Migratory Bird Treaty Act. The following distances are provided as general guidelines for maintaining habitats and reducing human disturbance:
 - a) For aircraft flights on Forest Service permitted or approved activities, when weather ceilings permit, maintain a constant flight direction and airspeed and a minimum flight elevation of 1,500 feet (458 meters) for helicopters and fixed-winged aircraft. If at all possible, avoid flying over seabird colonies.
 - b) Regulate human use to maintain a 250-meter no-disturbance distance from seabird colonies on upland habitats.
 - 2. The availability of garbage to gulls should be eliminated by requiring Special Use Permittees to collect and dispose of garbage from their Special Use Authorizations.
 - 3. Cooperate with state and other Federal agencies to develop sites and opportunities for the safe public viewing of these species. Maintain a public education program explaining forest management activities related to these species in cooperation with state and other Federal agencies.

IX. *Waterfowl and Shorebird Habitats*

- A. Maintain or enhance wetland habitats which receive significant use by waterfowl and shorebirds. (The Tongass National Forest is a "Priority Forest" in the national TAKING WING Strategic Plan.) "Significant" is relative, but generally relates to use of a specific area by tens or hundreds of individuals of one or more species.
 - 1. Support the international significance of wetland habitats on the Tongass National Forest by participating in partnerships such as the North American Waterfowl Management Plan and the Western Hemisphere Shorebird Reserve Network.
 - 2. Identify during project analysis, in cooperation with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service, wetlands which receive significant waterfowl or shorebird use during fall/winter/spring concentrations or nesting, brood rearing or molting habitats.

3. Locate facilities and concentrated human activities requiring Forest Service approval as far from known waterfowl or shorebird concentration and nesting areas as feasible. Minimize disturbance of waterfowl by restricting, when feasible, development activities to periods when waterfowl are absent from the area.
 4. During project analysis, consider the need to rehabilitate waterfowl habitat following development activities if there is no feasible alternative to the habitat disturbance. (Also see the Wetlands Forest-wide Standards & Guidelines.)
 5. Maintain habitat capability in coastal wetlands and intertidal areas that are important migratory staging areas and fall/winter/spring concentration areas, and wetlands that are important nesting and brood-rearing habitats, by avoiding, where feasible, all development activities which could fill wetlands, drain wetlands, or alter water levels resulting in loss of desirable vegetation, or direct loss of habitat. (Consult the Migratory Bird Treaty Act.)
 6. Minimize human disturbance of habitats during important periods of the year (nesting and brood-rearing, molting, and winter) by managing human use (such as trails, Off-Highway Vehicle use) in significant wetland areas. The following distances are provided as guidelines for reducing human disturbance:
 - a) Provide a minimum distance of 330 feet (100 meters) between human activities on the ground and significant areas being used by other waterfowl.
 7. Develop waterfowl habitat improvement projects in cooperation with appropriate state, Federal and local agencies, partner organizations, and individuals.
 8. For Special Use Administration (non-recreational), issue only authorizations which meet the objectives of Executive Order 11990 (Protection of Wetlands). Issue permits which serve to preserve, enhance, or aid in the management of the natural and beneficial values of wetlands.
 9. Perform integrated logging system and transportation analysis to determine if other feasible routes avoiding high use waterfowl areas exist.
 10. If the need to restrict road access is identified during project interdisciplinary review, roads will be closed either seasonally or yearlong to minimize adverse effects on waterfowl.
 11. Cooperate with state and other Federal agencies to develop sites for safe public viewing opportunities that do not adversely disturb wildlife. Maintain a public education program explaining forest management activities related to these species in cooperation with state and other Federal agencies.
- B. Conduct activities to avoid or minimize disturbance to habitats within the forest, riparian, and estuarine areas which are important nesting, brooding, rearing, and molting areas, for Vancouver Canada geese, sandhill cranes, or trumpeter swans.

X. *Heron and Raptor Nest Protection*

- A. Provide for the protection of raptor (hawk and owl) nesting habitat and great blue heron rookeries.

1. Conduct project level inventories to identify heron rookeries and raptor nesting habitat using the most recent inventory protocols.
2. Protect active rookeries and raptor nesting habitat. Active nests will be protected with a forested 600-foot windfirm buffer, where available. Road construction through the buffer is discouraged. Prevent disturbance during the active nesting season (generally March 1 to July 31).
3. Conduct annual monitoring for not less than 2 years after discovery of active nests. If the previously active nests remain inactive for 2 consecutive years, protection measures for the site may be removed.
4. Bald eagle nest protection standards are outlined in Section V.
5. Northern goshawk and osprey nest protection standards are included under the Threatened, Endangered, and Sensitive species Forest-wide Standards & Guidelines.

XI. *Alexander Archipelago Wolf*

- A. Implement a Forest-wide program, in cooperation with the Alaska Department of Fish and Game and U.S. Fish and Wildlife Service, to assist in maintaining long-term sustainable wolf populations.
 1. Where wolf mortality concerns have been identified, develop and implement a Wolf Habitat Management Program. To assist in managing wolf mortality rates to within sustainable levels, integrate the Wolf Habitat Management Program (including road access management) with season and harvest limit proposals submitted to Federal and State Boards..
 - a) Participate in interagency monitoring of wolf populations on the forest.
 - b) Where wolf population data suggest that mortality exceeds sustainable levels, work with the Alaska Dept. of Fish and Game and the U.S. Fish and Wildlife Service to identify probable sources of mortality. Examine the relationship among wolf mortality, human access, and hunter/trapper harvest. Conduct analyses for smaller islands (e.g., Mitkof Island), portions of larger islands, or among multiple WAA's.
 - c) Where road access has been determined, through the analysis, to significantly contribute to wolf mortality, implement effective road closures to reduce mortality. Open road densities of 0.7 to 1.0 miles per square mile of landscape or less may be necessary to reduce mortality to sustainable levels. Effective road closure prohibits motorized traffic (e.g., removing culverts or bridges versus only signing). Off-Highway Vehicle travel restrictions may also be necessary.
 2. Through the interdisciplinary process, integrate Wolf Habitat Management Program recommendations in the development of Road management objectives. (See Transportation Forest-wide Standards & Guidelines and Appendix L.)
 3. Provide sufficient deer habitat capability to first maintain sustainable wolf populations, and then to consider meeting estimated human deer harvest demands. This is generally considered 13 deer/square mile in biogeographic provinces where deer are the primary prey of wolves. Use the most recent version of the interagency deer habitat capability model and field validation of local deer populations to estimate deer habitat capability.

4. Design management activities to avoid abandonment of wolf dens.
 - a) Maintain a 1,200-foot forested buffer, where available, around known active wolf dens. Road construction within the buffer is discouraged and alternative routes should be identified where feasible. No road construction is permitted within 600 feet of a den unless site-specific analysis indicates that local landform or other factors will alleviate potential adverse disturbance.
 - b) If a den is monitored for two consecutive years and found to be inactive, buffers described in a), above, are no longer required. However, in the spring-time, prior to implementing on-the-ground management activities (timber harvest or road construction), check each known inactive den site to see if it has become active.

XII. *Mountain Goat*

- A. Provide for the long-term productivity of mountain goat habitat and viability of mountain goat populations, both native and introduced.
 1. Locate facilities and concentrated human activities as far from important wintering and kidding habitat as feasible.
 - a) Where feasible, locate facilities, camps, LTF's, campgrounds, and other developments 1 mile or more from important wintering and kidding habitat.
 - b) If the 1 mile or more distance cannot be achieved, mitigate possible adverse impacts by seasonally restricting or regulating human use, and other-site specific mitigation measures.
 2. Forest Service and State of Alaska permitted or approved aircraft flights (fixed wing and helicopter), including helicopter yarding of timber, should maintain a 1,500-foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. Where feasible, flight paths should avoid known mountain goat kidding areas from May 15 through June 15. Pilots will not compromise safety.
 3. Where feasible, maintain mountain goat important winter habitat capability. During project planning, use the most recent version of the interagency mountain goat habitat capability model which shows the most important habitat to generally be productive old-growth forest within 1,300 feet of escape terrain (>50% slope or cliff). Travel corridors used by mountain goats between important seasonal sites should be identified and maintained, especially when they occur in forested areas.

XIII. *Marbled Murrelet*

- A. Cooperate and coordinate with state and other Federal agencies to better understand the life history requirements and distribution of the marbled murrelet. Nesting habitat relationships are poorly understood.
- B. Maintain a 600-foot, generally circular, radius of undisturbed forest habitat surrounding identified murrelet nests, where available. Minimize disturbance activities within this buffer during the nesting season (May 1 - August 15). Maintain the buffer zone and monitor the site for nesting activity for not less than two nesting seasons after nest discovery. Maintain the buffer if the nest site

is active during the monitoring period. Buffer protection may be removed if the site remains inactive for two or more nesting seasons.

XIV. *Reserve Tree/Cavity-Nesting Habitat*

- A. Provide habitat for cavity-nesting wildlife species.
 - 1. Retain reserve trees within all Land Use Designations. Consider the following:
 - a) Retain reserve trees (which may be soft or hard snags) with a reasonable assurance of windfirmness, while meeting management objectives, considering safety needs for people and equipment.
 - b) Reserve trees do not need to be evenly distributed; clumped distributions are preferred.
 - c) Favor saving reserve trees away from roads to reduce loss from firewood gathering activity.
 - d) After timber harvest in an area, remaining reserve trees may be designated as wildlife trees and marked to make them illegal for cutting.
 - e) Consider retaining live trees for future reserve tree recruitment.

XV. *Moose Habitat*

- A. Develop habitat management direction for moose habitats. Coordinate planning with the Alaska Dept. of Fish and Game.
 - 1. During project planning, inventory vegetative conditions in moose habitat areas to help identify short and long-term changes in habitat conditions, and to assess the effects of various management activities.
 - 2. Plan habitat improvement projects utilizing a variety of techniques such as silvicultural treatments, young-growth management activities, prescribed burning, planting, and other vegetative manipulation techniques as appropriate.
 - 3. Coordinate other resource management activities to maintain or improve habitat conditions for moose. Manage roads to minimize adverse effects of human access on moose populations.

XVI. *American Marten*

- A. Implement a Forest-wide program, in cooperation with the Alaska Department of Fish and Game, to provide and conserve habitat to assist in maintaining long-term sustainable marten populations.
 - 1. Where marten mortality concerns have been identified, cooperate with the Alaska Department of Fish and Game to assist in managing marten mortality rates to within sustainable levels. Consider both access management on National Forest lands and hunter/trapper harvest regulations administered by the Alaska Department of Fish and Game.
 - a) Participate in interagency monitoring of marten populations on the forest.

- b) Where marten data suggest that mortality exceeds sustainable levels, work with the Alaska Department of Fish and Game to identify probable sources of mortality. In an interagency analysis, examine the relationship between hunter/trapper marten harvest and human access.
 - c) Where road access has been determined, through the analysis, to significantly contribute to unsustainable marten mortality, implement effective road closures to reduce mortality. Effective road closure prohibits motorized traffic (e.g., may include removing culverts or bridges versus only signing). Off-Highway Vehicle travel restrictions may also be necessary. To meet this direction, develop and implement road management objectives through an interdisciplinary process (see Transportation Forest-wide Standards & Guidelines).
2. The objective is to manage high value marten habitats in areas of timber harvest in higher risk biogeographic provinces to retain features of forest stand structure important to marten habitat use. Higher risk biogeographic provinces include regions where significant amounts of past timber harvest has established a large component of forest stand structure in young conifer stands (e.g., harvested since 1954) with little or no residual forest structure within the stands. These provinces are East Chichagof, Mitkof/Kupreanof, North and Central Prince of Wales, Etolin Island and Vicinity (excluding Zarembo Island where marten are absent), and Revillagigado Island and Vicinity. High value marten habitat includes stands below 1,500' elevation in high volume productive old-growth timber strata as identified in the latest version of the Interagency Marten Habitat Capability Model. High value habitat may be verified by project level review of model projections considering on-site specific information and stand characteristics.
- a) Implement the following standards and guidelines in 2. b) and 2. c) for high value marten habitat, unless local information from Southeast Alaska indicates that the marten habitat objective may be accomplished by employing different methods. Document the analysis to use other methods through the NEPA process. Examples of such local information include: 1) habitat relationships information on the structure of forest stands used and selected by marten for various life functions; 2) the response of marten populations to the configuration of habitat at the landscape scale; 3) the amounts and dynamics of coarse woody debris in various habitat types of forest stands and the relationship to marten habitat use; and 4) the amount and distribution of high value marten habitat that will be protected through land allocations or standards and guidelines (e.g., habitat reserves, riparian buffers, beach fringe corridors, etc.) that maintain the integrity of the old-growth forest and the known or inferred marten population response to that combination of protected habitat.
 - b) In VCU's in the higher risk biogeographic provinces where over 33 percent of the productive old growth forest has been converted to young conifer stands (e.g., harvested since 1954) or will exceed this amount after a proposed project activity, vegetation management that creates openings over 2 acres should use silvicultural methods to meet the following forest stand structural characteristics after harvest:
 - (1) Maintain an average of over 30 percent canopy closure throughout the harvest unit. Remaining trees should be uniformly distributed throughout the stand, but trees may be clumped for operational

concerns or ecological opportunities. Remaining features should include:

- (a) An average of at least 8 large trees/acre (20- to 30-inch DBH or greater) for future snag recruitment. Where not available substitute the next largest trees.
 - (b) An average of at least 3 large decadent (standing dead or dying) trees/acre (20- to 30-inch DBH or greater). Where not available substitute the next largest trees.
 - (c) An average of at least 3 pieces/acre of down material (logs 20 to 30 inches or greater in diameter at the large end and 10 feet long), generally distributed throughout the harvest unit.
 - (d) Consider adding smaller or younger trees for future structure recruitment and to improve windfirmness.
 - (e) Retained trees should have a reasonable assurance of windfirmness.
- c) In VCU's within higher risk biogeographic provinces and where less than 33 percent of the original productive old-growth forest has been harvested, vegetation management applied to high value marten habitats that creates openings over 2 acres should use silvicultural methods to meet the marten objective, above. Within the harvest unit, meet the following forest stand structural characteristics after harvest:
- (1) Retain approximately 10-20 percent of the original stand structure.
 - (2) An average of at least 4 large trees/acre (20- to 30-inch DBH or greater) for future snag recruitment. Where not available substitute the next largest trees.
 - (3) An average of at least 3 large decadent (dead or dying) trees/acre (20- to 30-inch DBH or greater). Where not available substitute the next largest decadent trees.
 - (4) An average of at least 3 pieces/acre down material (logs 20 to 30 inches or greater in diameter at the large end and 10 feet long), generally distributed throughout the harvest unit.
 - (5) Retained trees should have a reasonable assurance of windfirmness.
 - (6) Consider adding smaller or younger trees for future structure recruitment and to improve windfirmness.
- d) For timber harvest units less than or equal to 2 acres in size, in high value marten habitat, allow full canopy removal but limit the number of openings to an equivalent of 25 percent of the stand removed every 50 years (e.g., 12-13, 2-acre openings; 25, 1-acre openings, etc. within a 100-acre stand).

XVII. *Endemic Terrestrial Mammals*

- A. The objective is to maintain habitat to support viable populations and improve knowledge of habitat relationships of rare or endemic terrestrial mammals that may represent unique populations with restricted ranges.

1. Conduct surveys for endemic mammals prior to any project that proposes to substantially alter vegetative cover (e.g. road construction, timber harvest, etc.).
 - a) Survey islands smaller than 50,000 acres in total size (e.g., Hecata Island and smaller) that have productive old-growth forest suitable for timber harvest. Conduct surveys on larger islands if there is a high likelihood that endemic taxa are present that may be affected by the proposed project.
 - b) The extent and rigor of surveys will be commensurate with the degree of existing and proposed forest fragmentation, and potential risk to endemic mammals that may be present.
 - c) Surveys should emphasize small (voles, mice, and shrews) and medium sized (ermine and squirrels) endemic mammals with limited dispersal capabilities that may exist within the project area.
 - d) Design and test survey protocols in cooperation with the PNW Research Station.
2. Assess the impacts of the proposed project relative to the distinctiveness of the taxa, population status, degree of isolation, island size, and habitat associations relative to the proposed management activity.
3. Where distinct taxa are located, design projects to provide for their long-term persistence on the island.

XVIII. *Landscape Connectivity*

- A. Design projects to maintain landscape connectivity.
 1. The objective is to provide corridors of old-growth forest among large and medium old-growth habitat reserves (Appendix K) and other natural setting Land Use Designations (LUD's) at the landscape scale.
 2. During the environmental analysis for projects proposing to harvest timber, construct roads, or otherwise significantly alter vegetative cover, conduct an analysis at the landscape scale to identify blocks of contiguous old-growth forest habitat within large and medium reserves and other natural setting LUD's and then determine whether forest connectivity exists among old-growth blocks in large and medium reserves and natural setting LUD's. Consider existing features of the old-growth strategy such as the beach fringe, riparian buffers or other lands unsuitable for development as contributing to maintaining connectivity among large and medium old growth habitat reserves and natural setting LUD's. Where these features do not provide sufficient productive old-growth forest connectivity to meet the objective in 1. above, provide stands, where they exist, of productive old-growth forest or relocate mapped small old-growth habitat reserves (See Appendix K) during project planning. Designed corridors should be of sufficient width to minimize edge effect and provide interior forest conditions.

APPENDIX C

SAMPLE OUTFITTER GUIDE OPERATING PLAN

APPENDIX B

SMALL CRYSTAL SIZE OPERATION PLAN

Appendix C

Sample Outfitter Guide Operating Plan

Helicopter Glacier Landing, Trekking, and Dogsled Mushing Tours

I. Purpose

The primary purposes of this plan are:

1. To ensure protection of the natural resources within the Tongass National Forest in the permitted area of operation of Sample Helicopters, Inc.
2. To provide documentation of safety procedures, training, emergency contact procedures and mitigation required in the *Helicopter Landing Tours on the Juneau Icefield 2003 – 2007 Final Environmental Impact Statement and Record of Decision* to ensure a safe outfitter guiding operation for Sample Helicopter's clients. Upon approval by the permit holder and the Forest Service, this operating plan becomes part of the special use permit issued to Sample Helicopters, Inc. It is the responsibility of the permittee to seek out, understand and comply with all State, Federal, and local laws, policies, and regulations (i.e., OSHA requirements for employee housing, fuel storage, and handling requirements).

II. Description of Services and Operational Guidelines

Sample Helicopters, Inc. is authorized to conduct guided helicopter landing tours, dogsled mushing tours, and backcountry expedition tours on the Juneau Icefield. All tours will begin and end at the Sample Helicopters, Inc. Helicopter facility. Prior to all trips, all passengers will be briefed by Sample Helicopters, Inc. employees on proper safety procedures including loading, unloading, and in flight conduct and walking on glacier ice. Detailed descriptions of these tours are discussed later in this document.

Helicopter landings and associated activities will be within the limits of the *Helicopter Landing Tours on the Juneau Icefield 2003 – 2007 Final Environmental Impact Statement* and other stipulations identified in this operating plan.

Names and contact information for all Sample Helicopters, Inc., employees will be provided to the Forest Service prior to commercial operations, and updated throughout the season prior to new individuals participating in the authorized activities.

Sample Helicopters, Inc., will provide the Forest Service with names and contact information of subcontractors (Company name and list of employees) and validation of qualifications for the guided activity.

II. A. Helicopter Tour and Landing Site Operations

II. A. 1. Operational Requirements as Required in the Record of Decision for Helicopter Landing Tours on the Juneau Icefield 2003 – 2007 Final Environmental Impact Statement

All authorized operations will meet FAA requirements to achieve safe air operations (routing, airspace separation and coordination with other operators). Sample Helicopters, Inc. will comply with the most recent Letter of Agreement between airspace users in the Juneau area and the FAA Flight Standards District Office. The agreement specifies routes, altitudes, frequencies and procedures for operating in the Juneau area.

Consistent with aircraft and passenger safety and with FAA Regulations and the Letter of Agreement, all helicopter tour flights will maintain a 1,500 foot clearance and or avoidance (as described in Appendix X of this operating plan) of key mountain goat areas, mountain goats, bird nesting areas, brown and black bears, wolves, moose, sea lions and other marine mammals.

Consistent with aircraft and passenger safety and with FAA Regulations and the Letter of agreement, identified flight paths will be followed to provide regular and consistent helicopter activity and to avoid mountain goat kidding areas from May 15 through June 15 of each year as shown on Appendix X of this operating plan.

Consistent with aircraft and passenger safety, and with FAA Regulations and Letter of Agreement requirements, all authorized operations will adhere to the following U.S. Fish and Wildlife Service recommendations regarding eagle nests:

Maintain established travel routes but avoid any eagle nest by at least $\frac{1}{4}$ mile (1,320 feet).

Helicopters will avoid hovering and circling around any eagle nest.

Sample Helicopters, Inc. helicopters will not hover, circle, or harass wildlife in any way. This refers particularly to mountain goats, eagles, bears, sea lions and other marine mammals, but includes all other species.

Sample Helicopters, Inc. will report observations (date, location, species) of mountain goats, brown and black bear, moose, wolf and wolverines to the Juneau Ranger District with the end of the season use reports.

Sample Helicopters, Inc., will use flight routes as shown on the maps attached to this operating plan. Safety will not be compromised.

In partnership with the Forest Service and other helicopter tour operators, Sample Helicopters, Inc. will develop an exhibit or some other interpretive communication, for helicopter pilots and clients detailing appropriate aircraft behavior in regards to wildlife. The Forest Service and Sample Helicopters, Inc will mutually agree to the format of this message.

II. A. 2. Aircraft Safety

All authorized operations will assure that operators meet FAA requirements to achieve safe air operations (routing, airspace separation and coordination with other operators).

Flight routes will be coordinated with the FAA and other operators to insure safety of the operation. Sample Helicopters, Inc. is required to work with other permitted operators to coordinate flight approaches, landing sites and times to ensure helicopter safety, avoid congestion, and to minimize disruption to other tour operators. All companies flying on the Juneau Icefield are required to be in communication with each other.

The establishment of routes and aircraft operating procedures will utilize the recommendations of the Helicopter Association International (HAI) Fly Neighborly Program to the extent consistent with safety and FAA direction. All airspace issues need to be managed in accordance with FAA regulations.

All tour flights with passengers will be conducted in accordance with FAR Part 135.

All helicopters will meet certification and maintenance requirements of the FAA and will be fully operational and in good condition.

Helicopters will carry support equipment to assure convenience and comfort of passengers. The helicopters will carry a minimum of one first aid kit and airsickness bags.

Helicopters will be equipped with pulsating landing lights, position and strobe lights and high visibility rotor blades. All lights will be on during flight.

Helicopters will be equipped with FM radios for intra-company communication with Sample Helicopters, Inc.'s dispatcher. VHF radios will be used for communication with the Juneau Control Tower, for making position reports and communication with other aircraft on the traffic advisory common frequency.

Helicopter skids will be equipped with skid shoes that provide extra traction to prevent slipping on the glacier.

A-Star helicopters will be modified so that excess fuel in the turbine after engine shut down will not drain onto the glacier or ground.

Sample Helicopters, Inc. will abide by the Letter of Agreement with the local FAA Flight Standards office. The agreement includes air traffic procedures, frequencies, routes and other information. Sample Helicopters, Inc. will also coordinate with other operators to provide a safe operating environment.

II. A. 3. Pilot Requirements

All pilots must hold current commercial pilot licenses and medical certificates as prescribed by the Federal Aviation Administration and fully qualified under FAR Part 135.

It is the ultimate responsibility of each pilot to operate in a safe and prudent manner.

All pilots will be well orientated to the glacier tour routes and landing areas. All pilots will be thoroughly trained and briefed to obtain a full understanding of the peculiarities unique to glacier area flying, winds, whiteouts and landing surface conditions. This training will enable the pilots to have a competent level of proficiency for piloting in these conditions. Pilots will also be informed of the stipulations for wildlife protection and other mitigating measures described in this operating plan as well as the fly neighborly program for minimizing helicopter noise over residential and recreation use areas.

All pilots will be able to give accurate information about the glaciers and answer questions that arise during the tour.

All pilots will be trained in glacier safety.

Pilots will have First Aid and CPR training.

II. A. 4. Passenger Safety Briefings

Prior to boarding the aircraft, each passenger will receive a safety briefing on each item required by Federal Aviation Regulation Part 135. These items include smoking, seat belt use, locations of survival gear, location and use of emergency exits and doors, use of life vests and location of fire extinguishers.

The safety briefing will be given by the pilot or a person who has completed Sample Helicopters, Inc.'s FAA approved Safety Briefing Training Program.

The briefing will be supplemented by printed cards, which will be carried in the aircraft in locations convenient to each passenger.

Written safety briefings will be provided in common foreign languages for those who need them.

II. A. 5. Passenger Loading

All passengers will be manifested according to aircraft, with first and last names and passenger weights.

All loading will comply with aircraft weight and balance restrictions as required by FAR Part 135.

Passengers will not board or exit the helicopter while the rotors are turning unless there is a ground guide to direct and assist them. Pilots will remain at the controls until the rotors are stopped.

II. A. 6. Landing Sites

When multiple aircraft are landing at the same site, the helicopters will land at a safe distance from each other. This will allow the pilot to supervise a small group of people, brief them on the hazards of walking on the glacier and keep them away from hazard areas.

The landed helicopter has first priority over the area within the immediate vicinity of the landing location, with the exception of reserved sites. Reserved sites, which have a structure placed on them, may occupy up to 3 acres per site.

The exact location of the landing sites can vary on a day-to-day basis. Hazards to be evaluated are:

- Crevasses—The main hazard to consider in choosing a glacier-landing site. The proposed site must be flat and as crevasse free as possible. Glacier landing sites with snow-covered crevasses will be avoided.
- Icefalls—Any hanging ice or snow within the immediate vicinity of the ground site must be regarded as a possible hazard. Sites should be far enough away from any icefall to minimize the possibility of falling ice reaching the helicopter.
- Avalanches—Most slopes on the Juneau Icefield that extend past 4,000 feet in elevation can retain a substantial snow pack throughout the summer season. The potential instability of these snow packs, particularly those having slope angles between 20 degrees and 50 degrees, should be taken into account when

evaluating a potential glacier-landing site. Sites should be located away from any such slope, especially after heavy snow falls on higher elevations.

- Rock fall—All glacier-landing sites should be located clear of any massive rock outcrops that may present a danger from rock fall. All rock outcrops should be considered potentially loose.
- Site Grade— Selected sites must have a level grade. Sites, which are not level, have the potential to cause helicopters to slip when landing, taking-off, or sitting on the ice.

III. Basic Glacier Landing Tour

The average price for this tour is \$ _____. This tour involves a total time of 3 hours, including transportation to and from the cruise ship.

Clients will be transported via bus to the helicopter base of operations, where they will receive a tour overview, wildlife briefing, safety briefing, and glacier boots. Clients will then be escorted to the helicopter and introduced to their pilot. Escorts will ensure clients are properly seated and secured with seatbelts. Upon helibase departure, the A-Star, with up to six passengers aboard, will follow the route identified as Tour Route A and will land in area A1 or A2 as shown on attached map.

Clients will be informed on how and where to walk safely on the glacier surface, the nature of the Juneau Icefield, glacier features and dynamics, and the value of this Tongass National Forest resource. After given time to explore the immediate area with the pilot or on-site glacier guide, clients will return to the aircraft and continue on the remainder of the flightseeing tour. The tour ends at the helibase where clients are requested to fill out a comment card, and are also provided with a map of the Juneau Icefield.

IV. Icefield Flightseeing and Dogsled Mushing Tour

IV. A. Description of the Dogsled Mushing Tour

The average price for this tour is \$ _____. This tour involves a total time of 4 hours, including transportation to and from the cruise ship.

Clients will be transported via bus to the helicopter base of operations, where they will receive a tour overview, wildlife briefing, safety briefing, and glacier boots. Clients will then be escorted to the helicopter and introduced to their pilot. Escorts will ensure clients are properly seated and secured with seatbelts. Upon helibase departure, four A-Star Helicopters, each with up to six passengers aboard, will follow the flight route identified as Tour route B and will land in area B1 or B2 as shown on attached map. Poor weather flight route is shown as Bx on the attached map.

Four helicopters will fly together as a grouped flight and arrive at the camp at the same time. They will carry up to six passengers each for a total of 24 passengers per departure. There will be a maximum of ten groups of four helicopters per day. A maximum of 40 landings and 240 clients per day will occur at the dogsled mushing enclave site.

Upon landing on the glacier, the clients will receive a briefing on safety, glacier travel, operation of a sled dog team, and location and use of communication and survival equipment. They will be under the immediate supervision of a qualified guide at all times. Glacier boots will be provided by Sample Helicopters, Inc., as well as rain gear, gloves, sunglasses, and sunscreen, if necessary. The advertising brochures distributed on the cruise ships will encourage the clients to dress appropriately. In case of an emergency

the tents will be used as shelter for the clients, where all additional necessary clothing, blankets and weather-related gear will be located, to be used as needed.

Clients will receive a narration on the history of dog mushing in Alaska, the current sport of dog mushing, dog breeding, nutrition and some natural history of the glaciers that they are viewing.

After the briefings they will board the dogsleds for a ride of approximately 2 miles. Each of up to eight dog teams (10-12 dogs each) will be pulling two dogsleds in tandem with one passenger and the musher/guide, who is doing the driving, on the first sled and two passengers on the second sled. The dogsled ride will take about 30 minutes.

There will be stops during the ride to take pictures and rotate passengers from the rear sled to the front sled. At the end of the dogsled ride they will be given time for photos and socializing with the guides and dogs. They will then get ready for the helicopters to return to transport them back to the helibase. The client's total time on the glacier is about one hour.

IV. B. Dogs

All dogs must have the following credentials prior to transportation to the Juneau Icefield:

- Proof of rabies vaccination.
- Letter from AK licensed veterinarian listing each dogs name and "clean bill of health" for transportation to the icefield for work with the commercial dogsled operations. The letter must state that each dog is free from parasites and is current with all standard vaccinations. The veterinarian evaluation must be done within 3 weeks (21 days) prior to the dog's transportation to the icefield. The Forest Service must receive the letter verifying this evaluation no less than 3 days prior to the dog's transportation to the icefield.

Permittee must maintain a minimum of one-week supply of dog and people food and provisions on the activity site throughout the entire season of commercial operations.

An AK licensed veterinarian must visit the commercial dogsled activity site at least once each month to inspect the health and well being of the dogs. A report summarizing the findings of these site visits will be provided to the Forest Service within one week of the visit. Any recommendations from these inspections will be implemented immediately. The cost of these inspections is the responsibility of the permittee.

All dogs chosen for this operation will be very friendly and well socialized. All dogs will be under direct control of the mushers/guides at all times. All dogs will be licensed as required by the CBJ.

An individual doghouse will be provided for each dog. A thick, fresh, clean, dry bed of straw may be used in each doghouse. After use, all straw will be cleaned up and transported off the glacier.

A state licensed veterinarian must visit the site at least once each month to inspect the health and well being of the dogs. A report summarizing the findings of these site visits will be provided to the Forest Service within one week of the visit. Any recommendations from these inspections will be implemented immediately.

IV.C. Dogsled Mushing Camp Facilities and Trail System

The enclave development camp and trails will be designated and located to blend with the icefield surroundings and reasonably minimize visual impact. All camp facilities will be white. All buildings, supplies, gear, etc. will be completely removed from the icefield at the end of the season. The trail system will consist of two trails in a roughly circular

shape, each trail being approximately two miles long. Trail design will be developed as the season progresses and snow conditions from the previous winter are more defined. Additional trails must have prior Forest Service approval before trail use begins.

The base camp for operations will be located in a safe place, such that the danger of avalanche impact will be avoided, as well as ice/snow crevasse development. The camp will consist of 11-foot x 16-foot canvas wall tents (with a platform for each) and/or weather ports. One tent will be used for cooking and eating. The other tents will house the camp personnel and will also be used for storage. Furthermore, the tents can be used for shelter for the clients in case of bad weather or an emergency. Two snow white, one-piece, plastic, self-contained, portable, sanitary, public toilet facilities ("construction-site" style), each with hand wash facilities, will be available for employee and client use. These toilet facilities will be cleaned and maintained daily. Waste will be pumped out of these toilet facilities daily and transported off the icefield to a legal dumpsite in Juneau.

There will be eight guides and at least four additional employees at the camp. The guides will give the dogsled rides and the other employees will care for the dogs and perform other camp duties.

The only method of access to the camp will be by helicopter. The camp will be temporary and movable. It is anticipated that the camp will have to be moved at least one during the summer in order to address the changes in the weather, snow and ice conditions. Whenever the camp is moved, the Forest Service will be notified prior to and then after the move is completed. The move might be just a short distance on the same glacier, or a greater distance to another glacier. One camp move site B1 to site B2 is expected in August, depending on snow and ice surface conditions. Depending on the distance and other factors, the move will be accomplished by humans on foot, by dogsled, and/or by helicopter. Minor moves to accommodate the snowmelt dynamics can occur without a notification to the Forest Service; however, other significant moves (more than 500 feet) must be previously inspected and approved by the Forest Service permit administrator. The Sample Helicopters, Inc., at no cost to the Forest Service, will provide helicopter transportation for this inspection. This would be in addition to the monthly monitoring inspections.

Passengers, as well as food, drinking water and supplies for the camp, will arrive daily. All human and dog food brought to the icefield will be stored in sealed, plastic containers. A seven-day supply of food and supplies will be kept on hand at all times to allow for extended summer storms with whiteout conditions, which would prohibit helicopter resupply.

All camp facilities will be designed and colored to blend in with the natural environment. The only exception to this is the need for safety. For example, using colored flagging or fencing to keep visitors from straying into potentially hazardous areas. The intent is to minimize the visual disturbance of the enclave site facilities on the natural, white glacier environment.

There may be up to 12 structures for employee housing and operations. All facilities must be in accordance with State Department of Labor Safety and Health codes and regulations. It is the responsibility of the permittee to seek out these requirements.

A shower facility is authorized on site in order to meet OSHA requirements. All gray water, human and dog waste must be stored in sealed, leak proof containers. Dog waste will be removed from the snow and ice surface continually and daily. No more than three barrels full (55-gallon drums) of waste and wastewater may be stored on the activity site at any time (local weather permitting for helicopter operations.) All waste and wastewater will be transported off site and removed from National Forest Lands to an approved waste

disposal site. The intent is to avoid storing large quantities of waste on the Juneau icefield.

A thorough clean up and maintenance program will be performed for the kennel and trail system. Using shovels and plastic buckets, camp personnel will clean the kennel at least four times per day, and the trail system will be completely cleaned at least once each day, and other times as appropriate. All human and dog waste will be transported out of operating area daily by helicopter to a proper waste disposal site in Juneau. Waste will be transported in tight-sealing 55-gallon barrels. Emphasis will be placed on minimizing or eliminating (whenever possible) the visual effects on the icefield.

V. Backcountry Expedition Tours

The average price for this tour is \$ _____. This tour involves a range of total time of 3 hours to several days depending on the specific expedition tour selected, including transportation to and from the cruise ship.

The duration of backcountry expeditions will vary depending on market demand. Tours will vary between 2-hour, 4-hour, 6-hour or multi-day tours. Loop trips or point-to-point trips may be conducted. Locations of trekking routes, overnight camps, and starting and ending points are shown on the attached Map X.

Backcountry Expedition Tours involve complete outfitting clients with high quality mountaineering and expedition gear. This may include but is not limited to outer garments and gear for the icefield environment and travel, ice climbing tools, crampons, tents, skis, food and cooking gear, and other non-motorized equipment.

Tours will involve an overview of the Juneau Icefield and its natural resource significance as part of the Tongass National Forest. Safety briefing and instruction will be conducted prior to any travel on the icefield. Instruction will be given on safe icefield travel, the icefield environmental conditions, navigation and exploration of glacier features, and icefield dynamics at the beginning and throughout the tour.

Clients will be thoroughly instructed in the use of gear and the dangers of the icefield environment. Clients will have adequate opportunity to practice icefield travel with the specialized gear. Low impact, Leave No Trace ethics will be taught, stressed, and practiced.

Client to guide ration will be no more than 6:1 for these activities. There will be a minimum of one lead guide with each trekking group who will have a minimum of 2 years experience in backcountry expeditions in icefield environment. Lead guides will have a minimum of EMT or ETT certification.

VI. Enclave Site Stipulations

Dog sled mushing encampments are considered enclave development sites. Permittee must provide the Forest Service with a pre-season enclave site inspection, prior to site occupancy. Up to four Forest Service employees and/or other agency affiliates may be transported to the site. These trips are the responsibility of the permit holder and must be coordinated cooperatively with the Forest Service for availability of staff and time to implement. The intent of this inspection trip is to make sure the location is in an avalanche free area, has suitable surface conditions for operations, and is in a location that meets the spatial requirements for the desired Recreation Opportunity Spectrum setting indicators. Employees and/or clients and equipment may not occupy the site, even during the day, prior to this site inspection.

All human and dog food will be kept in sealed coolers or plastic containers to eliminate the spread of food odors. Garbage will also be kept in garbage cans with tight fitting lids. Garbage and human and dog waste will be removed from the icefield frequently to maintain a clean camp.

There will be one fire extinguisher in each facility at the camp. Safe operation of propane lights, heaters and cooking facilities will be stressed to all employees.

VI. A. Communications

Sample Helicopters, Inc. must have a functioning and usable radio/communication system in place prior to and during any and all commercial operations. Communications must be available 24 hours a day, all days of operations. Camp crew must be able to reach emergency services 24 hours a day, seven days a week. This system must be in place and functional for the pre-season site inspection. In addition, each guide will have a hand held radio with them at all times of commercial operations so that in case of emergency during the authorized activities, they can radio to the base camp for medical and/or emergency assistance, and helicopter transportation to medical facilities.

Permittee must make accommodations for day-to-day communications with appropriate Forest Service district staff/permit administrator. This can be best achieved through a dedicated telephone number for contact (not an answering service). The intent is to enable the Forest Service district staff/permit administrator and permit holder to be able to speak to one another to discuss issues within any 24-hour period.

A 24-hour radio/communications system must be functional and in place for testing by Forest Service personnel, prior to human occupancy of the site. The intent is to make sure there is 24-hour emergency contact available for anybody at the site of operations. It is the permittee responsibility to provide the Forest Service with OAS carded helicopter transportation to the site for testing the radio/communications system. These trips are the responsibility of the permit holder and must be coordinated cooperatively with the Forest Service for availability of staff and time to implement. This must be done prior to any human occupancy of the site.

VI. B. Fuels

Propane will be the fuel used in all cooking and heating stoves, thus eliminating the possibility of any fuel leaks or spills on the icefield. One gasoline powered generator may be used to charge radio batteries and power small hand held equipment and tools. There will be no more than five gallons of gasoline on the icefield at any time.

Permittees are also authorized to utilize portable gasoline generators for camp set up, demobilization, camp facility maintenance/repairs, battery charging, as well as a pump for pumping the waste from the portable toilets into the transportation drums. A snowmobile may be used only to set and groom the dogsled mushing trails. The snowmobile may not be used for any other purpose. The utility and maintenance operations mentioned here may be conducted only during the "off hours," 8:00 p.m. – 8:30 a.m. The intent of limited operating hours is to prohibit noise disturbance during the daytime and to promote the Semi-Primitive Recreation Opportunity Spectrum (ROS) experience for clients as well as any backcountry users who may be recreating in the vicinity.

Permittees will be required to handle, store, and maintain any and all fuels in accordance with the standards and guidelines as required by the AK Department of Safety and Health (all federal, state, and local laws apply). Gasoline and oil will be stored in tight metal or plastic containers to prevent spills on the snow. In addition, all petroleum fuels, oils, and equipment that are powered by such will be handled, stored and maintained in catchment

basins and/or double-walled tanks. Absorbent cloths must be readily available to swab up any oils and fuels that spill into the catchment basin.

The intent is to minimize the use of gasoline-powered tools and take all measures to avoid any possibility of fuel spillage on the icefield. Only minor use of gasoline-powered tools will be authorized at enclave sites.

Jet fuel is not authorized to be stored at any of these sites.

VI. C. End of Operating Season Clean Up

At the end of the operating season and no later than November 1 of the operating season, all camp and operations facilities will be evacuated from the Juneau Icefield. This is the responsibility of the Sample Helicopters, Inc. in entirety. Once the camp and facilities have been evacuated, Sample Helicopters, Inc. will provide an end of season site inspection by the Forest Service at no cost to the Forest Service.

Site evacuation must occur within one week of the last day of commercial operations, (local weather permitting for helicopter operations). Permittee must notify the Forest Service as soon as possible and at least 24 hours in advance of the planned date for site evacuation. An end of the season close out inspection (Forest Service certified helicopter service) must be provided as well. The end of season site inspection must be done as soon as possible after site evacuation, and no more than 7 days after site evacuation (local weather permitting for helicopter operations). Helicopter transportation for these inspections will be provided at no cost to the Forest Service. It is the responsibility of the permittee to notify the Forest Service and initiate and coordinate these inspections. The permittee, or designated representative, must be present at these inspections.

VI. D. Enclave Site Monitoring

Permittee must provide the Forest Service with one of the following:

- 1) A **letter of commitment and agreement from a helicopter company** (other than the one they are working with for the permitted activities) that they will provide the Forest Service with up to 4 monitoring trips the site of enclave operations. This letter must be received by the Forest Service prior to and within three weeks of commercial operations. It is the permit holder responsibility to cover the cost of these charter flights. The letter of agreement must state that the helicopter company can provide transportation in a Forest Service carded ship with Forest Service carded pilot for this activity (local weather permitting for helicopter operations) within any given 24-hour period.
- 2) Performance **Bond for \$4,000 (in the form of a bond, cashiers check or money order)** to cover helicopter costs in the event the Forest Service has to charter flight time for these inspections (total 4 hours at approximately \$1,000/hour).

These will be “unannounced monitoring trips,” and will be conducted at the discretion of the Forest Service. Up to four Forest Service employees and/or other agency affiliates may be transported to the site for monitoring purposes. The Forest Service will notify the helicopter company at least 24 hours in advance of when these trips will occur. The trips will typically involve a 3 to 5 hour visit to the site of operations. The helicopter need not stay on site during the visit.

VI. E. Default Performance Bonds

In the event permittee abandons the enclave site of operations at any point during the occupancy on the Juneau Icefield, the Forest Service will have to conduct a site clean up and evacuation of camp operations facilities and gear. This would involve Forest Service employees' time as well as helicopter time and sling loading the camp facilities and gear off the icefield, and subsequently dispose of it. To cover the cost of the Forest Service

salary and administration, permittee will deposit to the USDA Forest Service the penal sum in the amount of **\$2,000 in the form of a bond, cashiers check, or money order.**

To cover the cost of the helicopter time, one of two actions must be taken:

1. Permittee will deposit to the USDA Forest Service, in the form of a bond, cashiers check or money order the penal sum in the amount of \$ 20,000;
2. Helicopter partner letter of commitment or permit amendment to commit their time and resources to provide the helicopter support, valued at approximately \$20,000.

Deposits are pledged as security for performance and fulfillment of the special use permit(s) issued for activities in conjunction with the commercial helicopter tours on the Juneau Icefield. These monies will be returned to the permittee pending satisfactory site clean up, determined by the Forest Service at the end of season site inspection.

VI. F. Additional Safety Requirements at Enclave Sites

Emergency procedures of **whom and how to call for help** must be posted and readily available for all employees in the case of emergency.

In the event of client, employee, or dog injury, illness, death, or fuel spill (more than 5 gallons within the catchment basin and more than 1 gallon outside of the catchment basin), or other significant incident, the Forest Service must be notified within 4 hours and provided with a detailed incident report within 14 days of the incident. This report must include the circumstances under which the incident occurred, a detailed description of what happened and how, and at least two witness statements. A follow up action plan of what the permittee will do to prevent any similar incidents from occurring must be submitted to the Forest Service with the incident report.

First Aid equipment required to be readily available and on site prior to human occupancy and at all times of commercial operations:

- Stretcher or Stokes sled.
- Basic Standard First Aid Kits, group size at the base, and one on each dogsled.
- Search and Rescue equipment to be kept on site will include ropes, crampons, carabineers, ice axes, harnesses, and a litter. All guides will be familiar with the use of this equipment and basic icefield rescue techniques, but would not be expected to be proficient in the technical aspects of serious rescue techniques. The intent is for the employees to be able to assist the professionals who are transported to the site in case of emergency.
- Currently inspected and functional fire extinguishers in every structure at the base camp (except for outhouses and dog houses.)
- 24-hour communications system radio or telephone that can reach an emergency response entity.

VII. Emergency Procedures

VII. A. Emergency Procedures

Sample Helicopters, Inc., FAA approved emergency response plan will be followed to respond to overdue aircraft and related emergencies. In case of an aircraft accident or overdue aircraft, the Sample Helicopters, Inc. dispatcher will be notified by one of the communication links or initiate action himself or she if an aircraft is overdue by 30 minutes. The dispatcher will notify Sample Helicopters, Inc.'s base manager or

representative, dispatch another aircraft to determine the status of the overdue aircraft and contact other aircraft in the area.

As soon as an aircraft accident has been confirmed, Sample Helicopters, Inc. dispatcher will notify company officials, Alaska State Troopers or Juneau Police, Fire Department EMTs. They will use Sample Helicopters, Inc.'s Emergency Response Manual for guidance. Other aircraft and personnel will render whatever assistance is necessary.

A Forest Service Officer listed on the Emergency Contact List (Appendix X) will be contacted as soon as possible after the emergency has been attended to. This contact will be no later than 4 hours after the resolution of the incident. A detailed written report of the incident will be provided to the Forest Service within 14 days of the incident. A minimum of two witness reports will be provided in the report to the Forest Service. A reportable incident is considered any situation involving Outfitter guide employees or clients who needs more than on-site emergency first aid assistance; when the National Forest System resources have been adversely affected by accident or failed/improper procedures (i.e., fuel spill); or damage to aircraft has occurred.

VII. B. Passenger Illness or Injury

Any passenger illness or injury will be responded to immediately by the most appropriate means. This will include first aid, transport by van to the nearest medical facility, ambulance transportation or evacuation directly to the hospital by helicopter. If the patient cannot be moved, medical personnel will be brought to the scene to stabilize the patient prior to transport.

All situations involving passenger illness or injury will be coordinated via radio or telephone with the dispatcher. All passenger injuries, if more than on-site first aid is needed, are considered reportable incidents/emergencies and must be reported to the Forest Service accordingly.

VIII. Use Reporting

The tours will vary in length and landing locations. The charges for the tours are included in Appendix X. The tour routes and landing sites are included on the attached maps, Appendix X.

VIII. A. Monthly

Actual use numbers will be reported to the Forest Service on a monthly basis. Reports will be a daily record of operations detailing the time, number of helicopters, number of passengers in each aircraft, and the flight route and destination sites used as shown on the attached maps. All outfitter guided helicopter landings on the Juneau Icefield will be reported to the Juneau Ranger District on or before the 14th of the following month of operations. Use reports will be inclusive of permitted activities for the entire operating year, January through December.

VIII. B. End of Season

End of the season use reports are to be reported to the Juneau Ranger District within 30 days of the last tour of the year or December 31, whichever comes first.

End of the season use reports will include the following:

1. Tally of monthly use reports
2. Total landings for the year
3. Total service days for the year

4. Total service days for each price/tour category for the year
5. Wildlife observation log (forms provided by Forest Service Wildlife Biologist)

VIII. C. Gratuity Policy

Holder will provide the Forest Service with a gratuity (free or deeply discounted tours) policy statement by April 1 of each operating season. Holder must retain a detailed gratuity record for auditing purposes.

VIII. D. Permit Renewal

Requests permit renewal must be done prior to December 31 of any operating year. Request must include any proposed changes to operating plans and number of landings and/or service days.

APPENDIX D

SAMPLE PROSPECTUS AND BID

APPENDIX D

SAMPLE PREPARATION

Appendix D

Sample Prospectus and Bid

A. Purpose

A prospectus is issued and bid proposals are invited whenever a competitive interest exists or when it is believed that the issuance of a prospectus will result in (1) better services to the public and/or (2) increased revenue to the United States. (FS Manual 2700, 2712.2 – Prospectus).

B. Prospectus and Bid Forest Service Manual Direction

The following Prospectus and Bid direction is found in Forest Service Manual 2700, Special Uses Management (FSM 2700):

2712 - APPLICATIONS. Applications for special-use authorizations are made by bid in response to a prospectus; by Forms FS-2700-3, Special Use Application and Report, or FS-2700-3a, Request for Termination of and Application for Special-Use Permits or by some other specially prescribed form. An oral request to use National Forest System lands does not constitute an application.

Each application must contain enough information to fully describe the use requested. This must include an exact description of the tract of land, the extent and nature of the use, the acreage of land or list of Government improvements involved. Include information on how often and for what period the use is contemplated, and the applicant's ability to satisfy the requirements of the proposed use. For large complex uses, supporting data may be required in the form of financial statements, records of experience, maps, surveys, designs, and layouts. Such information, however, should be limited to that essential for evaluation of the proposed use and need not be in final form as would be presented for construction approval. Exercise care when requiring an applicant to go to considerable expense to provide such data. To do so, could imply approval of the permit application.

Financial information, if secured in confidence, is not public information.

Forest officers may not refuse to receive an application; they may approve it or disapprove it, however, based on law, regulation, policy or merit.

Special instructions related to applying for a specific use shall be found under the heading of that use in FSM 2720 or in other chapters of this title.

2712.1 - Qualifications of Applicants. Except that Members of the Congress and Resident Commissioners are prohibited by law from holding certain types of special-use permits (FSM 2703) any individual, corporation, association, municipality, or agency of local or State government is eligible for consideration for special-use permit.

Restrictions on Forest Service employees holding permits are stated in FSM 6174.

Carefully consider the qualifications of any applicant before approving a special-use application. Do this whether the application covers existing facilities or planned new facilities. See FSM 2716.12. Of primary interest when a public service is involved is the applicant's ability to perform according to the permit terms. Information on the following points is helpful in analyzing the qualifications of any applicant. It should be specifically requested in an invitation for bid proposal

(FSM 2712.2):

1. The kind and quality of the service to be offered.
2. The financial resources of the applicant. This may require an extensive review of the applicant's credit reference and financial responsibility. The applicant should have in cash or readily convertible assets at least 25 percent of the estimated development cost of the project.
3. The business experience and qualifications of the applicant in relation to the proposed use.
4. The fee offered for concession permit privileges.

The applicant must supply personal and business references so that the issuing officer is satisfied of the applicant's experience and reputation.

All information derived from such review is confidential and is for official use only.

2712.2 - Prospectus. When careful multiple use or functional planning, that is fully responsive to the intent of the Multiple Use and National Environmental Policy acts, indicates that a concession special use opportunity is available and there is a demonstrated public need for the service, make every effort to obtain the best qualified permittee as well as an equitable return to the United States.

This shall be accomplished by issuing a prospectus.

However, where access to the National Forest is across non-National Forest land a prospectus will not be issued until the Forest Service has completed appropriate arrangements for unrestricted public access.

Unless the existence of sufficient competitive interest is already established, public notice will be given to determine the existence of a competitive interest. As a minimum, one publication of the notice will be made in a newspaper of general circulation of the locality.

1. Publication-Notice Statements
 - a. Location and kind of special-use opportunity.
 - b. Probable amount of investment that will be required.
 - c. Explanation that a prospectus will be issued if competitive interest justifies it.
 - d. The place at which interested applicants may indicate interest and secure additional information.

Once it has been determined that a concession is in the best interest of the public, a prospectus shall be issued and proposals invited whenever a competitive interest exists or when it is believed that the issuance of a prospectus will result in (1) better services to the public and/or (2) increased revenue to the United States. No concession special-use permit shall be issued involving a total planned investment of more than \$100,000 without first issuing a prospectus and soliciting bids, unless the necessary private lands involved are controlled by the applicant and the development cannot be logically located entirely on National Forest lands.

Prospectuses in draft form shall be submitted to the Washington Office for review whenever total planned investment exceeds \$1,000,000 in winter-sports developments and \$250,000 for other concession developments.

Proposals involving private land shall be submitted to the Washington Office before negotiation takes place when total investment plans exceed the above criteria.

In soliciting bids, a complete prospectus with a sample permit or permits should be circulated, setting forth the minimum facilities and services which must be furnished, construction requirements, and time limits. Prospective bidders should be informed very plainly that the furnishing of public services at reasonable rates is a major objective and that the Forest Service shall not allow excessive prices. Prospective bidders should be advised to read the sample permits carefully and to discuss them fully if they have questions. The issuance of a prospectus should be given adequate publicity, including at least one public notice in a newspaper of wide local circulation. Some of the more complex proposals will require a prospectus advertising period of 6 months or more.

Bids are solicited on the basis of services required by the public and the minimum fee that will be accepted. The invitations shall clearly indicate that an annual minimum occupancy fee is due that is not refundable, but will be credited against the total calculated annual fee.

It is important that the prospectus state clearly that all Forest Service estimates of costs, expected use, snow conditions, or other business factors are only of a general nature and that it is the applicant's responsibility to make his own estimates the basis of his proposal.

Include in the prospectus all types of development which the Forest Service foresees it might approve to meet a public need. Depending on the situation, it might be stated as required development and optional development. Ask the bidder to express himself regarding the optional items. In addition, sufficient latitude should be provided in the prospectus and in the sample permit for approval, within the limits of the capacity of the site and other competing values, of future development which will meet a public need. This provision is necessary so that future expansion will be possible without being inconsistent with the prospectus (FSM 2711.2).

Both the prospectus and the bid submitted by the successful applicant become a part of the special-use permit issued for the site.

2. Essential Elements of Every Prospectus

- a. General Description of Area. This description covers those characteristics of the site and surrounding areas which have a bearing on development and operation of the facility being sought. It might

Appendix D

include, but is not limited to, location, accessibility, climate, topography, vegetation, local attractions, and recreation opportunities. The use of photographs and maps for descriptive purposes should be considered.

- b. Offering. At a minimum the offering shall include the reasons for the offering, the type of facilities and development being sought, and the types of facilities and development which the Forest Service might approve in the future. A suggested overall site plan might be used for this purpose. It is important that all present and foreseeable development be covered so that there will be common ground for evaluating all bids.
- c. Development Program Expected. This covers the minimum development of the site which shall be required by the Forest Service. Requirements regarding the site plan, construction, and timing shall also be specified.
- d. Permit. Include a sample permit or permits and a discussion of specific requirements including, but not limited to, the type of permit, fees, charges to the public, insurance, and bonds.
- e. Submission of Bids. Include directions on when and where to submit bids. Also specify the material to be submitted with the bid, including a proposed development plan, proposed operational plan, schematic plans for structures and other improvements, cost estimates, expected sales and numbers of users, a financial statement, plans for financing, and business and personal references.

Exercise care not to solicit finished plans or to otherwise require applicants to incur unnecessary expenditures.

For example, in a winter-sports response, lift plans should be schematic and such things as topographic maps, exact tower locations, lift line and snow profiles should not be required.

Financial statements and plans for financing are secured in confidence and are not public information, the prospectus should so state.

Estimates of numbers of users and expected sales should be provided for at least the first 5 years of operation. This information serves as an indication of the public need being met, and helps to evaluate the proposal. Therefore, it should be provided for a specified period in such form as can be used to compare proposals. For example:

1. Number of users by type (day visitors or overnight visitors).
 2. Number of users by season.
 3. Number of users by facility used.
 4. Sales by type of facility or service.
3. Selection of Successful Applicant. The prospectus shall specify the criteria to be used. These include, but are not necessarily limited to, the:
 - a. Kind and quality of service proposed in terms of meeting public need.

- b. Applicant's experience in this or related fields and the qualification he possesses to fully satisfy the public need for service.
 - c. Verification of financial resources.
 - d. Return to the Government.
4. Special Conditions. Include reservations and conditions by the Forest Service, such as the right to reject any or all bids, and the conditions under which the terms of the prospectus may be modified. The Forest Service is not obligated to accept the proposal with the highest bid. The objective is to select an applicant whose proposal will best serve the public need. However, obtain the advice of the attorney in charge and the Fiscal Agent prior to accepting a bid that does not provide the highest return.

When facilities are needed and a prospectus has produced no bids, conditions including surcharges on fees may be negotiated. In such cases, however, negotiations must be based on the requirement of the prospectus. Significant changes from the prospectus made during negotiations are cause for readvertisement.

C. Process

The Forest Service will develop a set of criteria that interested operators may respond to with a bid proposal package. The 4 basic evaluation criteria used to analyze the applicant qualifications are listed above in Section B, and examples of these are listed below in Section D. Selection of successful applicants will be based on response to these evaluation criteria. Evaluation of proposals is conducted by using numerical weighting for each criterion, depending on attributes key to the specific situation. The selection process is an appealable decision under 36 CFR 251.86. Permits will not be issued to selected applicants until the established administrative time period to appeal has elapsed, and if appealed, until the pending appeal is resolved. Both the prospectus and the bid submitted by the successful applicant become a part of the special-use permit issued for the site. We will consider the practicality of administering a special use permit based on proposals during our evaluation. For example: Administration based on helicopter flight timing is much more practical than administration based on specific altitude and air speed of helicopters.

Depending on the responses to the invitation for bids, (response to evaluation criteria) and the NEPA document identifying limitations for the possible activities (Helicopter Landing Tours on the Juneau Icefield 2003-2007 FEIS and the associated ROD), there may be one or multiple awards for the limited number of landings and possible activities on the Juneau Icefield. Award is made through a letter to successful applicants, followed by allocation through the issuance of a special use permit.

D. Sample Evaluation Criteria

Examples of criteria that could be used to evaluate an applicant's qualifications and ability to perform according to the permit terms are listed below.

1. The kind and quality of the service to be offered.

Examples include but are not limited to:

- Charges to the public for services.
- Type of equipment and gear used and/or provided to clients
- Type and capacity of aircraft utilized for the guided tour.
- Provisions for physically challenged and non-English speaking individuals
- Interpretive aspect of the tour, which furthers the understanding and enjoyment of the Tongass National Forest resources.

2. The financial resources of the applicant.

This may require an extensive review of the applicant's credit reference and financial responsibility. The applicant should have in cash or readily convertible assets at least 25 percent of the estimated development cost of the project.

Examples include but are not limited to:

- Applicants must complete the Financial Statement, Form FS 6500-24.
- Financial statements are secured in confidence and are not public information. Applicants must state if they want this form returned to them.

3. The business experience and qualifications of the applicant in relation to the proposed use.

Examples include but are not limited to:

- History of authorized use. We will consider an applicant's previous performance while operating under permit (i.e., compliance with terms of permit, prompt fee payment, reasonable record keeping and reporting, customer satisfaction, etc.)
- Employee emergency training, procedures, equipment/supplies.
- Client safety briefing content and procedures.
- Aircraft and all other equipment/gear used for the tours and activities on site. Avionics, radar altimeters, GPS units, modifications, modified skids, maintenance, etc.
- Ability to work with other outfitters/guides/tour operators to minimize conflicts.
- Ability to minimize and mitigate noise impacts to the recreationists and residents in the Juneau Community. Details may include the days and hours of operations, flight routes and elevations, weather effects on flight paths, and elevations.
- Ability to track and monitor flight routes and elevations, aircraft identification, and respond to public inquiries and complaints.
- Applicant must supply personal and business references so that the issuing officer is satisfied of the applicant's experience and reputation. All information derived from such review is confidential and is for official use only.
- Monitoring/feedback program.

4. The fee offered for concession permit privileges.

- In addition to the basic fees identified in this prospectus (Offerings), each bidder may offer a surcharge (a fee greater than the required, basic outfitter guide flat fee he/she is willing to pay for the service days he/she is bidding on. No minimum amount is required. This surcharge will be expressed in terms of a percentage and added to the basic fee.
- All surcharge bids will apply for a minimum of a 5-year period. This will include all temporary use that may be converted to priority use. Successful applicants with no recent authorized temporary or priority use will operate under annual temporary use permits for two consecutive years before being considered for priority use issuance.

APPENDIX E

Response to Comments

APPENDIX 5

THE HISTORY OF THE

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Appendix E

Response to Comments

In July 2001, the Draft Environmental Impact Statement (DEIS) for Helicopter Landing Tours on the Juneau Icefield 2002-2006 was published and distributed to approximately 275 agencies, organizations, businesses, and individuals. Availability of the DEIS was announced in the Federal Register on August 10, 2001, with a due date for public comments listed as September 24, 2001. A public meeting was announced in the newspaper of record, the Juneau Empire, for 2 days (September 5 and September 6, 2001). A public meeting held in Juneau on September 6, 2001, was attended by approximately 72 people, 11 of whom made oral comments on the DEIS.

On September 21, 2001, the due date for comments was extended to October 6, 2001. Comments were received from 2,255 sources and included 84 e-mails, 57 letters, 17 comment forms, 11 oral comments, and 2,086 formatted, pre-addressed comment cards from people who participated in helicopter landing tours during the comment period. One letter came from a federal agency, one from a state agency, and four from environmental groups. The remainder came from neighborhood associations, local businesses, and private citizens. In total, there were 3,167 individual comments.

Following an initial review of the comments and a general analysis of the issues, each letter, e-mail message, form, and oral statement was assigned an alphabetic code based on the name of the agency, organization, or individual(s) submitting the comments¹. Each individual comment in each statement was then assigned a sequential number. For example, Comment Number ADFG-1 is the first comment in the letter from the Alaska Department of Fish and Game (ADF&G).

Once the comments were delineated and numbered, general areas of concern in the public comments on the DEIS were identified. Most comments focused on one of twelve issues:

- A. Roles and Responsibilities of the Forest Service
- B. National Environmental Policy Act Compliance
- C. Consistency with the Tongass Land and Resource Management Plan
- D. Economic Effects
- E. Administrative Issues
- F. Alternatives
- G. Requests for Additional Information in the EIS
- H. Effects to Residents
- I. Effects to Recreationists
- J. Effects to Wildlife
- K. Safety

¹ The 2,086 pre-addressed comment cards were read and the comments were noted, but the cards were not individually coded.

L. Noise Metrics and Technology

Additional comments addressed miscellaneous concerns (M), offered editorial suggestions (N), or brought up issues that are outside the scope of this EIS (O). The responses that follow are organized around these fifteen topics.

Within these comment categories, similar comments were identified and addressed collectively. For instance, if several people expressed concern about the potential for negative effects of helicopter noise on local businesses, these comments were addressed by a single response.

Appendix Tables E-1 and E-2 are designed to help the reader identify the alphabetic code that was assigned to each letter and to locate the response to each comment in each letter. The tables are followed by responses, arranged alphabetically by the categories noted above.

Copies of letters, e-mail messages, comment forms, and oral testimony appear in Appendix F. Copies of the 2,086 post cards are not included. They are part of the planning record, available for review at the Juneau Ranger District office.

Appendix E

Appendix Table E-1. Comment Statement Received in Response to the Draft EIS (Page 1 of 4)

Author	Organization	City, State	Author Code
Letters, e-mail messages, and comment forms			
Elisabeth Babich and Günter Math		Juneau, AK	EBGM
Bruce Baker		Auke Bay, AK	BB
R. Banghart		Douglas, AK	RB
Milt Barker		Juneau, AK	MB
Jim Bentley		Juneau, AK	JB
Pam Bergmann	U.S. Department of the Interior	Anchorage, AK	USDI
Frank Bergstrom		Gardiner, MT	FB
Nancy Berland	Lynn Canal Conservation, Inc.	Haines, AK	LCCI
Sally Bibb		Juneau, AK	SBi
Heather Bingaman		Juneau, AK	HB
Art Bloom		Juneau, AK	AB
Sara Boesser		Juneau, AK	SBo
C. Dale Boushley			CDB
Bruce and Judy Bowler		Juneau, AK	BJB
Kaja Brix		Juneau, AK	KB
David Bruce		Juneau, AK	DB
Cindy Buxton		Juneau, AK	CB
Jack Cadigan		Juneau, AK	JCa
Shawn P. Carey and Marina Lindsey		Juneau, AK	SCML
Becky Carls		Juneau, AK	BC1
Becky Carls		Juneau, AK	BC2
Bob Casey		Juneau, AK	BCas
Adrian Celewycz		Auke Bay, AK	AC
Charlette Chastain		Auke Bay, AK	CCh
Citizens' Alternative		Juneau, AK	CA
William F. Clutton		Juneau, AK	WFC1
William Clutton	Era Helicopters	Juneau, AK	WFC2
William Clutton	Era Helicopters	Juneau, AK	WFC3
Debera Cokeley		Juneau, AK	DC
Richard Cook		Juneau, AK	RC
JoAnne Craig		Juneau, AK	JAC
Judy Crondahl		Juneau, AK	JCr
Art and Sharon Crostick			ASC
Elizabeth Cuadra		Juneau, AK	EC
Christopher Custer		Juneau, AK	CCu
Robert L. Daniels		Juneau, AK	RLD
Eldon and Jan Dennis		Juneau, AK	EJD
Larry DePute			LD
Tom Doran		Auke Bay, AK	TD
Eric D. Eichner	TEMSCO Helicopters, Inc.	Ketchikan, AK	EDE
Lincoln Eldredge		Dallas, TX	LE
Bob Engelbrecht	NorthStar Trekking	Juneau, AK	NST
Gordon Warren Epperly		Juneau, AK	GWE
Mike and Sue Etchart		Litchfield Park, AZ	MSE
Elizabeth Fischer		Juneau, AK	EF

Appendix Table E-1. Comment Statement Received in Response to the Draft EIS (Page 2 of 4)

Author	Organization	City, State	Author Code
Letters, e-mail messages, and comment forms			
Ron Flint			RF
Douglas D. Frazier		Anchorage, AK	DDF
Dave Fremming	Alaskan Southeaster Magazine	Juneau, AK	DF
Anne Fuller and Michael Sakarias		Juneau, AK	AFMS
Robert Ganem			RG
Gerard Garland		Juneau, AK	GG
John Garrard		Auke Bay, AK	JG
Anders Gaustad		Benicia, CA	AG
Peggie Gordon		Juneau, AK	PG
DeeAnn and Michael Grummett		Juneau, AK	DMG
Pat Harris		Juneau, AK	PHa
Betty Lou Hart		Juneau, AK	BLH
Debbie Hart		Juneau, AK	DH
Karla Hart		Juneau, AK	KH
Dianna G. Hebert		Maricopa, AZ	DGH
John A. Hebert		Maricopa, AZ	JAH
Joe Hegseth		Galt, CA	JHe
Pete Hettinger		Juneau, AK	PHe
Ammon and Janice Hill		Juneau, AK	AJH
Everett Hinkley		Juneau, AK	EH
Everett Hinkley	North Douglas Neighborhood Association	Juneau, AK	NDNA
Everett and Sandy Hinkley			ESH
Bryan Hochgesang		Jasper, IN	BH
Jeff and Diane Hoover			JDH
John Hudson		Juneau, AK	JHu
Lynn Humphrey and Peter van Tamelen		Juneau, AK	LHPT
Lee Hurley			LeH
Larry Hurlock		Juneau, AK	LaH
Frank L. Jensen Jr.	Tour Operators Program of Safety	Dumfries, VA	FJ
Lynn Kanowith			LKan
Lorene Kappler			LKap
Janet Kennedy and Garry Ketts			JKGK
Ben Kirkpatrick	Alaska Department of Fish and Game	Douglas, AK	ADFG
Margot Knuth		Juneau, AK	MK
Christine Kondzela		Auke Bay, AK	CK
Jennifer LaRoe		Juneau, AK	JLR
Donna Leamer		Juneau, AK	DL
Joyce Levine		Juneau, AK	JL
Laura Lucas		Juneau, AK	LL
Robert and Janie Lyle		Federal Way, WA	RL
Ron Maas		Juneau, AK	RMa
Neil MacKinnon		Juneau, AK	NM
Deanna MacPhail		Juneau, AK	DMac

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Appendix Table E-1. Comment Statement Received in Response to the Draft EIS (Page 3 of 4)

Author	Organization	City, State	Author Code
Letters, e-mail messages, and comment forms			
Charles and Mary N. Magistro		Upland, CA	CMM
Tim McDonnell	TEMSCO Helicopters, Inc.	Juneau, AK	TMc
Michele and James McEdward		Juneau, AK	MJM
Loraine H. McGregory		Juneau, AK	LHM
Shauna McMahon		Juneau, AK	SMcM
Denice A. Bleggen McPherson		Douglas, AK	DBM
Scott McPherson		Douglas, AK	SMcP
Douglas Mertz		Douglas, AK	DM
Tom Meyer	Tom's Pots	Juneau, AK	TM
Roman Motyka		Juneau, AK	RMo
Jan Moyer		Juneau, AK	JM
Kevin Nault		Juneau, AK	KN
Brian Nelson		Anchorage, AK	BN
Michael Nelson	NorthStar Trekking	Juneau, AK	MN
Patrick Owen			PO
Jamie Parsons	Juneau Chamber of Commerce	Juneau, AK	JCC
Tom Paul		Juneau, AK	TP
Stacey and Heit Poppinga		Jacksonville, FL	SHP
Grace Powers			GP
Ray Preston		Juneau, AK	RP
Ted Randall		Juneau, AK	TR
R. Mike Rawson		Juneau, AK	RMR
Mala Reges	Cruise Control	Juneau, AK	CrCo
Jim Rehfeldt		Juneau, AK	JReh
Jerry Reinwand			JRei
Andy Romanoff		Juneau, AK	AR
Kristen Romanoff		Juneau, AK	KR
Mark Rorick	Juneau Group of the Sierra Club	Juneau, AK	JGSC
Deborah Rudis		Juneau, AK	DR
Hakon Satvedt		Auke Bay, AK	HS
Susan Schrader	Southeast Alaska Conservation Council	Juneau, AK	SEACC
Billie Jo Secrist			BJS
Ken Seright	Coastal Helicopter	Haines, AK	KSe
Russell E. Shaub		Juneau, AK	RES
Linda Shaw		Juneau, AK	LSh
Thomas Shirley		Auke Bay, AK	TS
G. R. Shuman		Reno, NV	GRS
Paulette Simpson		Douglas, AK	PS
Joe Sonneman		Juneau, AK	JS
Larri Irene Spengler	Thane Neighborhood Association		TNA1
Larri Irene Spengler	Thane Neighborhood Association		TNA2
Kathy Stepien		Juneau, AK	KSt

Appendix Table E-1. Comment Statement Received in Response to the Draft EIS (Page 4 of 4)

Author	Organization	City, State	Author Code
Letters, e-mail messages, and comment forms			
Larry Stevens		Juneau, AK	LSt
Reed Stoops		Juneau, AK	RS
John C. Stratton		Tacoma, WA	JCS
K. Adrian Strutz		Juneau, AK	KAS
Susan Super			SS
Andy Thomas	TEMSCO Helicopters, Inc.	Juneau, AK	AT
Kevin Tillotson		Juneau, AK	KT
Sam Tomaro		Juneau, AK	ST
Gayle Trivette		Juneau, AK	GT
Chris Trollan		Juneau, AK	CT
Marc Villeneuve		Johnson City, TN	MV
Lynn Wallen		Juneau, AK	LW
Dawn R. Walsh		Douglas, AK	DRW
Margo Waring		Douglas, AK	MWa
Sandy Warner		Juneau, AK	SW
Nancy Waterman		Juneau, AK	NW
Marc Wheeler		Juneau, AK	MWh
Russ White		Juneau, AK	RW
Michael Wilde		Juneau, AK	MWi
D. Linn Wiley		Alta Loma, CA	DLW
Nathaniel W. Williamson		Olympia, WA	NWW
Mary F. Willson		Juneau, AK	MFW
Sara H. Willson		Auke Bay, AK	SHW
Dorothy Wilson		Juneau, AK	DW
Jim Wilson	Coastal Helicopters	Juneau, AK	JW
Michael Wilson		Juneau, AK	MWil
Amy Windred	Era Aviation	Juneau, AK	AW
Stephen E. Wright		Juneau, AK	SEW
Oral Comments submitted during public meetings			
Becky Carls		Juneau, AK	BC3
Bill Clutton		Juneau, AK	WFC4
Ronald Dippold		Juneau, AK	RD
Karla Hart		Juneau, AK	KH2
Everett Hinkley			EH2
Dixie Hood			DHo
Joyce Levine		Juneau, AK	JL2
Dylan Quigley		Juneau, AK	DQ
Robert Reges	Cruise Control	Juneau, AK	CrCo2
Mark Rorick	Juneau Group of the Sierra Club	Juneau, AK	JGSC2
Paula Terrel		Juneau, AK	PT

Appendix E

Appendix Table E-2. Index of Responses to Comments

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Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number
AB-1	I-1	AT-7	K-2	BC2-19	F-12	BC2-65	H-1
AB-2	O-1	AT-8	K-2	BC2-20	M-6	BC2-66	M-1
AB-3	F-5	AT-9	F-15	BC2-21	H-4	BC2-67	M-9
AC-1	F-3	AT-10	F-15	BC2-22	J-1	BC2-68	F-20
AC-2	F-5	AW-1	F-15	BC2-23	A-3	BC2-69	N-10
AC-3	M-1	AW-2	A-1	BC2-24	H-1	BC2-70	H-1
AC-4	I-1	AW-3	F-3	BC2-25	N-8	BC2-71	N-10
AC-5	F-5	AW-4	J-8	BC2-26	H-8	BC2-72	J-11
AC-6	F-3	AW-5	F-15	BC2-27	F-16	BC2-73	N-10
ADFG-1	J-3	BB-1	I-1	BC2-28	F-16	BC2-74	J-11
ADFG-2	J-4	BB-2	F-5	BC2-29	F-16	BC2-75	L-7
ADFG-3	O-1	BB-3	A-2	BC2-30	G-16	BC2-76	L-3
ADFG-4	J-6	BB-4	E-2	BC2-31	F-5	BC2-77	L-8
ADFG-5	J-6	BB-5	K-1	BC2-32	A-1	BC2-78	H-6
ADFG-6	J-7	BB-6	K-1	BC2-33	H-1	BC2-79	L-5
ADFG-7	F-17	BB-7	K-1	BC2-34	A-1	BC2-80	N-3
ADFG-8	F-5	BB-8	B-3	BC2-35	M-1	BC2-81	L-9
ADFG-9	J-1	BB-9	G-3	BC2-36	L-1	BC2-82	L-9
ADFG-10	J-6	BB-10	C-2	BC2-37	N-10	BC2-83	L-10
ADFG-11	E-4	BB-11	I-3	BC2-38	F-16	BC2-84	L-11
ADFG-12	J-13	BB-12	B-1	BC2-39	I-5	BC2-85	L-9
ADFG-13	J-5	BB-13	I-3	BC2-40	N-10	BC2-86	N-10
ADFG-14	J-13	BB-14	G-7	BC2-41	F-5	BC2-87	N-10
ADFG-15	J-3	BB-15	F-19	BC2-42	F-12	BC2-88	L-12
ADFG-16	J-21	BB-16	C-1	BC2-43	F-16	BC2-89	F-9
ADFG-17	J-4	BB-17	D-7	BC2-44	F-5	BC2-90	N-10
AFMS-1	I-1	BC1-1	N-10	BC2-45	F-5	BC2-91	F-16
AFMS-2	F-15	BC1-2	N-10	BC2-46	F-7	BC2-92	H-7
AFMS-3	F-5	BC2-1	F-3	BC2-47	F-5	BC2-93	H-13
AFMS-4	F-3	BC2-2	D-4	BC2-48	F-3	BC2-94	H-6
AFMS-5	F-3	BC2-3	N-10	BC2-49	F-5	BC2-95	N-10
AFMS-6	F-3	BC2-4	F-16	BC2-50	G-1	BC2-96	F-16
AG-1	J-2	BC2-5	G-3	BC2-51	O-1	BC2-97	L-12
AG-2	A-3	BC2-6	H-4	BC2-52	O-1	BC2-98	N-4
AG-3	D-6	BC2-7	G-17	BC2-53	N-10	BC2-99	H-5
AJH-1	H-1	BC2-8	H-1	BC2-54	F-9	BC2-100	H-5
AR-1	F-6	BC2-9	N-10	BC2-55	F-5	BC2-101	F-16
AR-2	I-1	BC2-10	H-1	BC2-56	I-1	BC2-102	J-5
AR-3	O-1	BC2-11	N-5	BC2-57	J-1	BC2-103	J-14
ASC-1	F-16	BC2-12	H-7	BC2-58	N-10	BC2-104	D-4
AT-1	F-3	BC2-13	H-9	BC2-59	D-8	BC2-105	F-7
AT-2	F-11	BC2-14	H-4	BC2-60	D-1	BC2-106	I-1
AT-3	G-1	BC2-15	I-1	BC2-61	H-1	BC2-107	H-1
AT-4	N-9	BC2-16	J-10	BC2-62	I-3	BC2-108	H-5
AT-5	J-6	BC2-17	H-4	BC2-63	O-1	BC2-109	J-1
AT-6	J-3	BC2-18	K-3	BC2-64	F-8	BC2-110	H-5

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Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number
BC2-111	J-5	CB-11	J-1	CrCo-17	H-1	CrCo-62	F-9
BC2-112	N-10	CB-12	J-1	CrCo-18	A-1	CrCo-63	G-11
BC2-113	N-10	CB-13	G-2	CrCo-19	C-2	CrCo-64	N-10
BC2-114	F-10	CB-14	D-7	CrCo-20	E-5	CrCo-65	D-7
BC2-115	D-7	CB-15	F-9	CrCo-21	A-1	CrCo-66	H-1
BC2-116	G-10	CB-16	H-1	CrCo-22	B-3	CrCo-67	F-16
BC2-117	C-2	CB-17	H-1	CrCo-23	A-1	CrCo-68	H-1
BC2-118	N-10	CB-18	I-3	CrCo-24	N-2	CrCo-69	L-4
BC2-119	G-3	CB-19	D-4	CrCo-25	B-1	CrCo-70	L-5
BC2-120	D-4	CB-20	K-3	CrCo-26	L-1	CrCo-71	F-9
BC2-121	F-12	CB-21	F-7	CrCo-27	G-10	CrCo-72	F-9
BC2-122	G-15	CB-22	F-7	CrCo-28	E-2	CrCo-73	L-4
BC2-123	F-3	CB-23	J-9	CrCo-29	F-3	CrCo-74	H-11
BC3-1	F-16	CB-24	J-11	CrCo-30	F-3	CrCo-75	D-7
BC3-2	F-1	CB-25	J-11	CrCo-31	F-10	CrCo-76	I-4
BC3-3	F-4	CB-26	F-7	CrCo-32	F-5	CrCo-77	L-13
BC3-4	H-1	CB-27	G-5	CrCo-33	A-1	CrCo-78	G-2
BC3-5	E-6	CB-28	E-3	CrCo-34	A-1	CrCo-79	G-2
BCas-1	H-2	CB-29	F-3	CrCo-35	A-1	CrCo-80	I-8
BH-1	F-15	CB-30	F-3	CrCo-36	F-14	CrCo-81	J-7
BJB-1	F-3	CCh-1	I-1	CrCo-37	F-14	CrCo-82	F-1
BJB-2	D-7	CCh-2	D-4	CrCo-38	B-5	CrCo-83	F-4
BJB-3	F-15	CCh-3	H-1	CrCo-39	F-5	CrCo2-1	L-4
BJB-4	F-15	CCu-1	F-3	CrCo-40	F-10	CrCo2-2	D-7
BJS-1	F-3	CDB-1	F-15	CrCo-41	A-1	CrCo2-3	A-1
BLH-1	H-1	CDB-2	F-15	CrCo-42	F-2	CrCo2-4	L-2
BLH-2	F-3	CK-1	H-1	CrCo-43	F-7	CrCo2-5	G-1
BLH-3	K-4	CK-2	F-3	CrCo-44	F-10	CrCo2-6	F-5
BLH-4	F-5	CMM-1	F-3	CrCo-45	F-5	CrCo2-7	C-3
BLH-5	G-5	CrCo-1	C-3	CrCo-46	A-1	CrCo2-8	A-1
BLH-6	F-3	CrCo-2	D-1	CrCo-47	F-19	CrCo2-9	L-1
BLH-7	H-1	CrCo-3	B-1	CrCo-48	B-5	CT-1	F-16
BN-1	F-3	CrCo-4	D-8	CrCo-49	F-7	CT-2	H-1
BN-2	F-15	CrCo-5	D-1	CrCo-50	F-10	CT-3	M-1
CA-1	F-1	CrCo-6	I-1	CrCo-51	F-7	CT-4	M-1
CB-1	G-4	CrCo-7	F-1	CrCo-52	A-1	CT-5	F-5
CB-2	D-7	CrCo-8	O-1	CrCo-53	O-1	DB-1	F-3
CB-3	D-7	CrCo-9	A-1	CrCo-54	A-1	DB-2	F-15
CB-4	D-8	CrCo-10	F-10	CrCo-55	F-3	DB-3	H-2
CB-5	H-1	CrCo-11	A-1	CrCo-56	B-5	DB-4	F-15
CB-6	H-1	CrCo-12	F-5	CrCo-57	O-1	DB-5	F-15
CB-7	D-1	CrCo-13	O-1	CrCo-58	A-1	DB-6	F-15
CB-8	D-1	CrCo-14	A-1	CrCo-59	F-2	DBM-1	H-1
CB-9	I-3	CrCo-15	E-1	CrCo-60	G-10	DBM-2	H-1
CB-10	J-11	CrCo-16	A-1	CrCo-61	A-1	DBM-3	F-5

Appendix Table E-2. Index of Responses to Comments

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Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number
DC-1	F-3	EDE-1	F-3	FB-4	I-2	JGSC-4	I-7
DC-2	I-1	EDE-2	D-6	FB-5	D-6	JGSC-5	C-2
DC-3	H-1	EDE-3	F-15	FB-6	D-6	JGSC-6	F-8
DDF-1	F-15	EF-1	D-6	FB-7	H-2	JGSC-7	I-3
DF-1	D-6	EH-1	H-1	FJ-1	F-15	JGSC-8	G-8
DGH-1	D-6	EH-2	G-5	GG-1	F-3	JGSC-9	D-8
DGH-2	F-3	EH-3	G-5	GG-2	H-1	JGSC-10	D-7
DH-1	G-5	EH2-1	H-1	GP-1	F-16	JGSC-11	D-1
DH-2	F-3	EH2-2	F-8	GRS-1	F-15	JGSC-12	B-2
DHo-1	H-8	EH2-3	D-8	GT-1	D-1	JGSC-13	C-2
DHo-2	D-8	EH2-4	G-15	GT-2	D-10	JGSC-14	C-2
DL-1	F-15	EJD-1	F-16	GT-3	H-1	JGSC-15	C-2
DL-2	F-3	EJD-2	G-4	GT-4	F-16	JGSC-16	O-1
DLW-1	F-3	EJD-3	F-3	GWE-1	A-1	JGSC-17	C-2
DLW-2	F-15	ESH-1	B-3	GWE-2	A-4	JGSC-18	F-1
DM-1	H-1	ESH-2	F-16	HB-1	F-6	JGSC-19	C-2
DM-2	E-1	ESH-3	H-1	HS-1	F-3	JGSC-20	G-6
DM-3	F-16	ESH-4	A-2	JAC-1	F-5	JGSC-21	A-1
DM-4	F-5	ESH-5	K-1	JA-1	D-6	JGSC-22	A-1
DMac-1	F-16	ESH-6	G-2	JA-2	F-3	JGSC-23	E-2
DMac-2	O-1	ESH-7	D-10	JB-1	F-3	JGSC-24	E-2
DMac-3	F-16	ESH-8	O-1	JB-2	J-3	JGSC-25	F-2
DMG-1	H-1	ESH-9	F-8	JB-3	I-1	JGSC-26	F-8
DMG-2	B-1	ESH-10	A-2	JB-4	F-3	JGSC-27	F-1
DQ-1	I-1	ESH-11	G-15	JB-5	F-5	JGSC-28	J-3
DQ-2	M-1	ESH-12	D-1	JB-6	F-3	JGSC-29	J-3
DQ-3	H-1	ESH-13	D-1	JB-7	F-3	JGSC-30	J-16
DR-1	O-1	ESH-14	D-1	JB-8	F-3	JGSC-31	J-5
DR-2	J-4	ESH-15	D-7	JB-9	F-3	JGSC-32	J-17
DRW-1	H-1	ESH-16	G-5	JCa-1	F-15	JGSC-33	F-6
DRW-2	K-1	ESH-17	H-1	JCa-2	F-3	JGSC-34	B-3
DRW-3	B-1	ESH-18	F-16	JCC-1	D-6	JGSC-35	F-3
DW-1	F-15	ESH-19	G-4	JCC-2	F-15	JGSC-36	H-10
DW-2	F-3	ESH-20	F-16	JCC-3	F-15	JGSC2-1	H-1
DW-3	F-15	ESH-21	H-1	JCC-4	F-15	JGSC2-2	C-2
DW-4	J-15	ESH-22	D-1	JCC-5	F-3	JGSC2-3	C-3
EBGM-1	H-1	ESH-23	O-1	JCr-1	F-3	JGSC2-4	G-2
EBGM-2	O-1	ESH-24	F-8	JCr-2	D-1	JGSC2-5	E-2
EBGM-3	F-16	ESH-25	O-1	JCr-3	O-1	JGSC2-6	H-1
EC-1	F-3	ESH-26	G-6	JCr-4	F-3	JHe-1	F-15
EC-2	F-5	ESH-27	F-8	JCS-1	F-15	JHu-1	I-1
EC-3	E-2	ESH-28	A-3	JDH-1	H-1	JHu-2	H-1
EC-4	K-1	ESH-29	F-3	JDH-2	F-5	JHu-3	F-16
EC-5	O-1	ESH-30	F-6	JG-1	J-2	JHu-4	F-3
EC-6	H-1	FB-1	F-3	JGSC-1	G-6	JHu-5	F-17
EC-7	L-5	FB-2	F-3	JGSC-2	C-1	JKGK-1	F-15
EC-8	L-6	FB-3	F-3	JGSC-3	C-2	JL-1	F-16

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Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number	Comment Number	Response Number
JL-2	J-4	KB-1	F-16	KH-40	H-1	KR-3	O-1
JL-3	F-3	KB-2	H-1	KH-41	J-4	KR-4	H-1
JL-4	F-5	KB-3	F-3	KH-42	E-3	KSe-1	F-15
JL-5	F-3	KB-4	F-16	KH-43	A-1	KSe-2	F-15
JL2-1	D-10	KB-5	A-2	KH-44	I-5	KSe-3	F-15
JL2-2	H-12	KB-6	F-3	KH-45	F-19	KSe-4	F-15
JL2-3	F-5	KH-1	E-1	KH-46	B-4	KSt-1	H-1
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JLR-4	H-1	KH-8	N-2	KH-53	D-4	KT-4	F-15
JLR-5	F-3	KH-9	I-6	KH-54	G-1	KT-5	F-3
JLR-6	F-8	KH-10	F-9	KH-55	K-4	KT-6	F-15
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JReh-2	F-3	KH-15	G-7	KH-60	F-6	LCCI-2	J-3
JReh-3	F-5	KH-16	M-5	KH-61	F-8	LCCI-3	J-4
JReh-4	A-2	KH-17	G-8	KH-62	A-1	LCCI-4	J-25
JRei-1	N-10	KH-18	G-4	KH-63	F-5	LCCI-5	E-4
JS-1	H-1	KH-19	D-5	KH-64	F-3	LCCI-6	M-1
JS-2	F-16	KH-20	D-5	KH-65	F-3	LCCI-7	E-2
JS-3	O-1	KH-21	H-1	KH-66	K-3	LCCI-8	J-23
JS-4	F-5	KH-22	G-9	KH-67	F-1	LCCI-9	A-1
JS-5	O-1	KH-23	G-5	KH-68	F-21	LCCI-10	G-12
JS-6	O-1	KH-24	G-21	KH-69	F-19	LD-1	H-1
JS-7	F-5	KH-25	G-12	KH-70	G-3	LD-2	F-3
JS-8	F-16	KH-26	D-2	KH-71	N-6	LD-3	G-6
JS-9	F-16	KH-27	D-9	KH-72	M-8	LE-1	F-15
JS-10	K-4	KH-28	I-3	KH-73	G-15	LeH-1	F-16
JW-1	A-4	KH-29	I-4	KH-74	G-4	LeH-2	H-1
JW-2	D-1	KH-30	G-3	KH-75	B-3	LeH-3	F-3
JW-3	F-15	KH-31	F-9	KH2-1	G-4	LeH-4	O-1
JW-4	N-10	KH-32	I-5	KH2-2	H-12	LHM-1	H-1
JW-5	F-3	KH-33	I-3	KH2-3	H-1	LHM-2	F-16
JW-6	F-18	KH-34	C-1	KH2-4	G-20	LHPT-1	F-3
JW-7	I-5	KH-35	G-2	KN-1	A-3	LHPT-2	H-1
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LHPT-9	C-2	MWi-2	F-7	NST-22	F-11	PS-2	F-15
LHPT-10	E-3	MWi-3	A-2	NST-23	F-19	PS-3	F-15
LHPT-11	H-1	MWi-4	E-1	NST-24	N-10	PS-4	F-15
LKan-1	F-15	MWi-5	I-3	NST-25	F-15	PS-5	H-2
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LKap-2	F-15	MWi-7	F-3	NST-27	F-15	PT-1	D-10
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LL-8	K-3	NDNA-5	M-3	NW-3	F-17	RC-1	F-15
LSh-1	H-1	NDNA-6	G-2	NW-4	G-1	RC-2	F-15
LSh-2	F-3	NDNA-7	D-10	NW-5	N-10	RC-3	H-2
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LW-2	H-1	NDNA-12	D-1	NWW-2	A-5	RD-4	O-1
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MB-4	F-3	NDNA-16	F-3	NWW-6	F-15	RD-8	K-1
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MFW-2	O-1	NST-1	F-4	PG-1	F-15	RD-10	D-10
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MJM-2	F-16	NST-3	F-15	PHa-2	A-1	RD-12	J-4
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MK-2	F-16	NST-6	I-5	PHe-2	I-1	RD-15	D-10
MK-3	I-1	NST-7	F-5	PHe-3	F-16	RES-1	F-3
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MK-5	A-2	NST-9	F-3	PHe-5	O-1	RF-1	F-3
MN-1	F-15	NST-10	F-14	PHe-6	F-5	RF-2	F-15
MSE-1	F-3	NST-11	N-10	PHe-7	A-1	RG-1	F-15
MV-1	F-15	NST-12	J-8	PHe-8	L-2	RL-1	F-15
MV-2	A-3	NST-13	J-6	PHe-9	A-3	RLD-1	F-3
MWa-1	F-3	NST-14	J-18	PHe-10	K-1	RMa-1	H-1
MWa-2	B-1	NST-15	N-9	PHe-11	F-3	RMa-2	F-16
MWh-1	H-1	NST-16	I-5	PHe-12	F-16	RMa-3	F-3
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MWh-3	O-1	NST-18	C-2	PO-2	J-4	RMa-5	F-3
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RMR-3	J-1	SEACC-17	N-10	TM-2	F-15	WFC2-10	F-15
RMR-4	F-5	SEACC-18	F-1	TM-3	H-2	WFC2-11	A-3
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RP-6	H-1	SEW-1	B-3	TMc-6	F-15	WFC3-5	K-2
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RP-8	B-6	SEW-3	F-3	TNA1-2	H-1	WFC3-7	H-2
RP-9	H-1	SEW-4	O-1	TNA1-3	F-16	WFC3-8	D-8
RP-10	A-1	SHP-1	F-15	TNA1-4	H-1	WFC3-9	C-3
RP-11	F-6	SHW-1	F-3	TNA1-5	F-16	WFC3-10	D-6
RP-12	F-3	SHW-2	M-2	TNA1-6	K-1	WFC3-11	H-2
RP-13	F-6	SMcM-1	F-15	TNA1-7	A-2	WFC3-12	D-6
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RS-2	K-3	SS-1	H-1	TP-1	F-5	WFC3-14	F-15
RW-1	F-5	SS-2	A-1	TP-2	J-3	WFC4-1	F-15
RW-2	H-1	SS-3	G-6	TP-3	E-4	WFC4-2	F-15
RW-3	F-3	ST-1	F-15	TP-4	H-7	WFC4-3	F-15
SBi-1	O-1	ST-2	F-15	TP-5	J-4	WFC4-4	A-1
SBi-2	F-3	ST-3	F-3	TP-6	A-2	WFC4-5	D-6
SBi-3	O-1	ST-4	F-15	TR-1	J-2		
SBo-1	F-16	SW-1	F-3	TR-2	I-2		
SBo-2	H-1	SW-2	H-1	TR-3	F-15		
SBo-3	O-1	SW-3	I-1	TS-1	H-1		
SBo-4	O-1	SW-4	A-1	TS-2	F-16		
SBo-5	F-16	SW-5	D-4	TS-3	I-1		
SCML-1	O-1	SW-6	K-4	TS-4	F-16		
SEACC-1	D-3	SW-7	F-16	TS-5	D-1		
SEACC-2	D-3	SW-8	K-1	TS-6	F-16		
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SEACC-4	B-2	SW-10	F-5	WFC1-1	F-3		
SEACC-5	F-12	SW-11	F-19	WFC1-2	F-15		
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SEACC-7	C-2	SW-13	D-8	WFC2-1	F-15		
SEACC-8	E-3	SW-14	E-4	WFC2-2	D-6		
SEACC-9	I-3	SW-15	F-16	WFC2-3	F-15		
SEACC-10	J-4	SW-16	F-5	WFC2-4	J-2		
SEACC-11	J-22	SW-17	O-1	WFC2-5	H-2		
SEACC-12	J-20	SW-18	L-2	WFC2-6	N-2		
SEACC-13	J-11						

A. ROLES AND RESPONSIBILITIES OF THE FOREST SERVICE

A-1. Several comments indicate that route restrictions are within the Forest Service's authority of granting permits. For example, one comment says:

The issue is not whether the USFS has the authority to stipulate and enforce flight paths for aircraft, but whether the use of certain USFS-designated flight paths can be specified as a condition of permitting icefield landings. The USFS does not need the authority to control aircraft operation in order to specify that permits will be issued only to those operators who agree to follow specific flight paths (and which operators will make the necessary arrangements with the governing authority - FAA - to have such flight paths properly authorized).

Another indicated that the Forest Service should evaluate an alternative in which it designates flight routes, even if it is outside Forest Service jurisdiction.

Other comments indicate that the Forest Service should designate routes just as the National Park Service does in the Grand Canyon or designate any of the following restrictions on flights:

- Avoid residential areas completely
- Avoid road-accessible areas
- Avoid Forest Service-established no-fly zones
- Fly at least 1,500 feet above residential areas
- Vary flight paths such that certain residential areas would be free of noise for half of each day
- Use certain routes during good weather and other routes during poor weather

Response: The Forest Service does not have the authority to regulate, restrict, or authorize flight routes.

The Forest Service is meeting the requirements of the National Environmental Policy Act (NEPA) by disclosing effects of the most likely flight routes to be used. It is important to recognize that there could be variations to these routes because of changing weather conditions, Federal Aviation Administration (FAA) direction, and pilot discretion in response to other air traffic and safety needs. The Forest Service is not the authority on aircraft safety and is not prepared to substitute its judgment for that of the FAA. The Forest Service is prepared to support the ongoing attempts of the City and Borough of Juneau (CBJ), the FAA, and the flightseeing industry as they continue to look at alternative routes that could reduce noise in residential areas, including routes from new heliports.

With respect to the flight paths designated by the National Park Service over the Grand Canyon, the National Park Service was specifically mandated by the U.S. Congress to take on that task. The Forest Service has no similar mandate.

A-2. Several comments indicate that it is the responsibility of the Forest Service to control the noise associated with helicopter landing tours. Specific comments indicate that the Forest Service should limit the effects of tourism, protect the common good, and mitigate the adverse effects on recreationists.

Response: Comments noted. NEPA requires the Forest Service to consider and disclose the effects of the proposed action and alternatives, as well as those of the final decision. The DEIS considers and discloses noise effects on the environment based on the results of noise studies performed specifically to evaluate helicopter noise in Juneau. The DEIS includes discussions pertaining to the 2000 Noise Assessment (Michael Baker Jr., Inc. [Michael Baker] et al., 2001) in Chapter 1, pages 1-30 to 1-31, and to the 1999 Noise Assessment (Acentech, 1999) and the 2000 Noise Assessment (Michael Baker et al., 2001) in the *Acoustical Environment* section (pages 3-14 and 3-15). The analysis of impacts appears in Chapter 4.

A-3. Several comments suggest that resolving the noise problem will take the combined efforts of the Forest Service, the CBJ, and the FAA, while some suggest that the issue should be addressed by the CBJ and not the Forest Service.

Response: Comments noted. The Forest Service is working with the CBJ and FAA to resolve the noise issue within the regulatory authority of each body.

A-4. Several comments indicate that the Forest Service regulates landings, not flight routes.

Response: Comments noted.

A-5. Some comments indicate that the government should not interfere in private business and private business decisions.

Response: Comments noted.

B. NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE

B-1. Several comments indicate that the EIS shows a pro-business or pro-tourism bias. One says that Chapter 1 gives the impression that the decision has already been made not to select the No-Action Alternative.

Response: As noted in the Purpose and Need statement in the DEIS and in the Forest Plan Standards and Guidelines, the Forest Service is required to:

Work with recreation service partners and the tourism industry in identifying and developing services and opportunities. Recreation service partners provide services and opportunities that supplement the use and enjoyment of the national forests by a variety of people (Tongass Land and Resource Management Plan 1997 [also known as the Forest Plan], Chapter 4, Forest-wide Standards & Guidelines for Recreation and Tourism, page 4-37).

As noted in Chapter 2, Comparison of Alternatives, Alternative A, the No-Action Alternative, is not consistent with the Forest Plan because it does not address this requirement.

B-2. Several comments suggest revisions to the Purpose and Need statement, indicating that the current statement reflects a bias toward authorizing the number of landings requested by the helicopter companies.

Response: Comments noted. See Response B-1.

B-3. Several comments state that the DEIS is inadequate in its analyses and, therefore, requires the consideration and inclusion of additional information as a supplement or revised draft to be circulated for full public review. Commenters also state that the DEIS's inadequacies prevent its use as the basis for making decisions. Specific comments on the DEIS include the following:

- Failure to comply with Code of Federal Regulations (40 CFR 1502.2 [g]), which requires EISs to "... serve as a means of assessing the environmental impact of proposed agency action, rather than justifying decisions already made"
- Inadequate assessment of the environmental and social impacts of the proposed action, including noise impacts to residents, wildlife, and outdoor recreationists
- Incomplete discussion of the mediation results
- Incomplete discussion of mitigation measures
- Failure to adequately identify and address issues of noise, economics, safety, and irretrievable and irreversible commitment of resources
- Insufficient information to assess compliance with the Forest Plan Standards and Guidelines; widespread non-compliance with REC 122 and WILD 122
- Failure to meet NEPA mandate to assess cumulative impacts because insufficient data were collected and presented
- Failure to balance the public need for helicopter flightseeing/mechanized use v. public need for quiet, nonmotorized uses of the Forest
- Scoping was flawed, i.e., failure to identify significant issues

Response: Additional information has been added to the FEIS to address many of these points, as described below. None of the changes is substantive enough to require that the document be re-issued as a revised draft or supplemental EIS.

- The DEIS and FEIS meet the requirements of 40 CFR 1502.2[g] with respect to assessing the environmental impact of proposed agency actions. See Chapter 4, Environmental Consequences.
- The FEIS, Chapter 4, Environmental Consequences, assesses the impacts of the proposed action and alternatives.
- Additional discussion of mitigation plans and recommendations and mediation efforts has been added to Chapter 1 of the FEIS, in the *Mitigation Recommendations and Mediation Efforts* section, page 1-30.
- Additional discussion of mitigation measures has been added to Chapter 2 of the FEIS under the *Mitigating Measures and Conditions Common to all Action Alternatives* section, page 2-20.
- Information concerning safety and irretrievable and irreversible commitment of resources has been added to the FEIS at pages 4-32 and 4-35, respectively. Issues related to noise are addressed in the DEIS and FEIS, Chapter 4. With respect to economic issues, see response D-1.
- Additional information with respect to Forest Plan Standards and Guidelines has been added to the FEIS to clarify how the Standards and Guidelines are being applied in this analysis. See FEIS pages 1-21 to 1-26, and Response C-2.
- Some additional information with respect to non-landing tours and other air traffic has been added to the *Cumulative Effects* section, pages 4-33 to 4-35.

- With respect to balancing the public need for tours vs. the public need for quiet, please see Response F-12.
- The DEIS, pages 1-17 through 1-19, describes the scoping process and identifies the significant issues.

B-4. One comment recommends that all helicopter landings be addressed as part of the permitting process, not just icefield tours.

Response: The *Cumulative Effects* discussion (pages 4-25 through 4-28 in the DEIS) acknowledges the impacts of helicopter tours with destinations other than the Juneau Icefield. Please note that the Forest Service Manual does not require permits for unguided activities such as point-to-point transportation (air taxi), unguided heli-skiing, and photo shoots.

B-5. Several comments indicate that requiring the tour operators to follow applicable laws does not constitute mitigation.

Response: Council on Environmental Quality (CEQ) Implementing Regulation 1508.2 defines mitigation to include avoiding, minimizing, rectifying, reducing, and compensating for the impact. Requiring the operators to follow applicable laws is part of the special use permit authorizations, although not the only part.

B-6. One comment states that the DEIS does not identify the criteria that will be used in determining which alternative to select.

Response: The Purpose and Need statement on page 1-9 of the DEIS summarizes the decision criteria concisely. In the following excerpt from that statement, key elements that provide decision criteria have been underlined for emphasis.

Additionally, the units of measure used to evaluate the alternatives are stated with respect to each issue in the DEIS, page 1-19.

The purpose and need for the Proposed Action are to meet public demand for quality, outfitter-guided services that provide safe helicopter access to remote locations on the Juneau Icefield. Meeting this demand includes providing for visitor safety and an appropriate balance between commercial, guided recreation opportunities and noncommercial, nonguided recreation opportunities while minimizing impacts to people and resources.

C. CONSISTENCY WITH THE TONGASS LAND AND RESOURCE MANAGEMENT PLAN

C-1. Several comments indicate that the EIS must provide a map depicting the Recreation Opportunity Spectrum (ROS) by Land Use Designation (LUD).

Response: The LUD map (see Figure 1-4 in the Final EIS) displays the ROS by LUD for each LUD where helicopter landing sites are being considered in this EIS. The Forest Plan LUDs prescribe goals and objectives for management and the desired ROS environment. Refer to the Management Prescriptions for Remote Recreation LUD and Semi-Remote Recreation LUD, and the corresponding ROS Setting Indicators and Standards and Guidelines in Appendix B of this EIS. In summary, the Management Prescription for LUD Remote Recreation is to manage recreation and tourism for the Primitive ROS setting, and the Management Prescription for LUD Semi-Remote

Recreation is to manage for the Semi-Primitive ROS, with occasional enclaves causing the ROS to become Rural.

The ROS inventory for the Juneau Icefield, conducted in 1982 to 1984, was adapted for the Forest Plan. This ROS inventory was a "snapshot in time" of the existing condition and is not a substitute for the land management prescriptions that are required under each LUD.

C-2. Several comments raise the related issues of enclaves, minor developments, and the Forest Plan standards and guidelines for Remote and Semi-Remote Recreation LUDs. One comment, for example, says:

Recreation Use Administration. Item REC 122 II 4 d) (2) (b), TLMP 4-41. This criteria [sic] reads that operations can be authorized if "Existing or proposed operations and activities are appropriate for the specific ROS settings within the Land Use Designation." . . . the DEIS does not state what the ROS spectrum designations are for the project area or their boundaries. This is a flaw in the DEIS that needs to be corrected, but [the commenter] will assume for the purpose of this discussion that the designations are some combination of the Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized ROS designations, and that they are in conformity with TLRMP's stated objectives for Remote and Semi-Remote LUDs. TLRMP (3-63) states that for the remote recreation LUD the Ranger should "manage recreation and tourism use and activities to meet the levels...indicated for the Primitive Recreation Opportunity Spectrum class." For Semi-Remote LUDs, TLRMP similarly prescribes that the "Semi-Primitive ROS designations" be applied. Assuming this is generally the application that the Ranger District has applied to the LUDs within the project area, [the commenter] believes some of the DEIS's alternatives, i.e., C, D, E, F, and G, violate TLRMP ROS guidelines for most of the NFS land where landings are permitted or an excessive number of over flights are occurring.

Other comments focus on the incompatibility of enclaves with certain ROS and LUD classifications, and on the definitions of enclaves and minor developments.

Response: This is a complex concern, addressing issues related to the ROS inventory, LUDs, the definition and nature of enclaves, and Forest Plan direction. To clarify Forest Service direction with respect to this issue, several pages of discussion have been added to the FEIS, beginning on page 1-21.

Table 1-2 of the DEIS, reprinted here, indicates the maximum amount of use allowed by the Forest Plan at each site or facility in each LUD.

Table 1-2. Maximum Recreation and Tourism Development Generally Allowed by LUD¹

LUD	Number of overnight guests	Number of users per day	Number of landings per site per day
Remote Recreation	10	24	10
Semi-Remote Recreation	24/150 ²	50/300 ²	10/100 ²
LUD II	24	50	10

¹ The actual numbers authorized could be larger or smaller depending on site-specific analysis.

² The first number is for most areas within the LUD and the second is for enclaves of recreation and tourism developments.

Source: Forest Plan, 1995 (page 4-40). See also Appendix B of this document.

C-3. A couple of comments indicate that the EIS fails to analyze the effects of social encounters. One comment says:

The DEIS does not analyze or discuss the effect of flightseeing within the context of social encounters and visitor impacts, including the interrelation of economic, social, and natural or physical environmental effects on the human environment. A “social encounter” occurs when a USFS visitor comes within sight or sound of another USFS visitor. DEIS, Appendix B, B-13. Clearly the hikers, kayakers, and other USFS visitors on the ground encounter flightseeing sights and sounds.

Response: While it is true that hikers, kayakers, and other National Forest visitors on the ground encounter the sights and sounds of overflights, it is not necessarily true that such overflights constitute social encounters in the sense the commenter means. “Encounter” is not defined in the Forest Plan. The definition of encounter is truly dependent upon personal perception and opinion. Webster’s Third New International Dictionary defines encounter as: “to come upon face to face,” ... “to come upon accidentally or unexpectedly, to come together by chance.”

Based on historic use figures, trail users on the East or West Glacier Trail could expect to see and/or hear approximately 200 helicopter landing tour overflights on a busy day. Hikers on Herbert Glacier Trail could expect to see and/or hear approximately 50 helicopter landing tour overflights on a busy cruise ship day. These are estimates and actual users may experience less or more helicopter landing tour overflights, as well as other aircraft overflights.

Aircraft flights may be within sight and/or sound of many people. As noted in the EIS discussion of cumulative effects, Chapter 4, observed aircraft travel in the vicinity of the Juneau Icefield may include the following:

- Flights associated with authorized commercial helicopter landing activities
- Fixed-wing and/or helicopter flightseeing tours (non-landing and thus non-permitted)
- Point-to-Point charter flights that may or may not land (non-permitted)
- Commuter traffic – small and large aircraft, fixed-wing, and helicopter (non-landing and thus non-permitted)
- Military aircraft maneuvers

Although these overflights may be within sight and sound of those on the ground, they cannot be considered “social encounters” in this context. See also Response C-1.

D. ECONOMIC EFFECTS

D-1. Several comments suggest that a benefit/cost analysis be added to the EIS. The comments that recommend a benefit/cost analysis generally indicate that the community receives only minimal economic benefits from the helicopter landing tours. Specific comments include the following: the tour operators do not pay sales tax or full property taxes; the economic contributions of the tour companies do not compensate for the impacts on the community; and the DEIS conclusions are based on insufficient economic data.

Response: An economic analysis is not needed to support a reasoned decision in this case. The primary issues and impacts are social, not economic, and the additional information provided by a benefit/cost analysis would not add appreciably to what is already known about the impacts of the helicopter landing tours on the community.

D-2. One comment says that important qualitative considerations make a cost-benefit analysis unnecessary.

Response: Comment noted.

D-3. Some comments indicate that the Forest Plan requires the Forest Service to demonstrate public “need,” not public demand.

Response: The following excerpts from the Forest Plan address this issue.

TLRMP 1997, Chapter 1, *Introduction*, pages 1-6 and 1-7 includes the following statements, which indicate that demand is an indicator of the need.

Demand - Projections of resource demand give an indication of how much of a resource might be needed or desired. ... Recreation use, including tourism, is predicted to increase over the next decade, but will remain well below the Forest’s current capacity of 4.9 million Recreation Visitor Days.

Use and Development Opportunities - Recreation - ... Opportunities to provide for unroaded recreation and tourism through non-timber designations exist in the 9.45 million acres of unroaded lands outside Wilderness. Opportunities to increase semi-primitive motorized uses are limited. There are many opportunities for developing new recreation facilities or improving new ones.

TLRMP 1997, Chapter 2, Goals and Objectives, page 2-3 further discusses the Forest Plan direction on the issue:

Recreation & Tourism (Resource)

Goal: Provide a range of recreation opportunities consistent with public demand, emphasizing locally popular recreation places and those important to the tourism industry.

Objective: Manage the Forest’s recreation settings in accordance with the Recreation Opportunity Spectrum (ROS) standards and guidelines for each Land Use Designation.

The Juneau Icefield is a very popular and unique public landmark for all U.S. citizens and people from around the world. The majority of Juneau Icefield helicopter landing tour participants are from other parts of the United States and the world. The vast majority of these people cannot access the Juneau Icefield by any other means. Virtually all comments expressed by participants indicate that it was the most memorable, high point of their entire vacation. Public need in this context is the same as public demand.

D-4. Several comments suggest that the aggressive marketing tactics of the helicopter companies and cruise ship companies create a false demand. One comment says the following:

There is no proof that there is any specific level of demand for these tours. People have booked these tours, often in response to aggressive marketing and sales by the cruise ship. If there were limited tours and consequently less marketing, there would be less demand. Similarly, a higher price would produce less demand. Nothing about the tours is

affordable to many of the visitors to Juneau already, raising prices to adjust demand is a normal thing to do in a market-driven economy such as the United States. The demand is actually from the helicopter and cruise companies seeking profits from these tours.

Response: It is possible that if the price were higher, there would be less demand. The Forest Service does not assume any specific level of demand in any of the alternatives under consideration in this EIS. Instead, this analysis is concerned with the issuance and terms of special use permits for helicopter tours. The number of people who choose to pay for these tours is market-driven. The history of this industry is that demand has grown over the years, and is expected to continue to grow.

D-5. Several comments note that helicopter landing tour passengers are richer than cruise passengers in general, and likely richer than Juneau residents.

Response: The Forest Service has no evidence that helicopter landing tour passengers have higher average incomes than Juneau residents. Even if this were the case, a difference in the income level of helicopter landing tour passengers *versus* non-passengers would not, however, necessarily demonstrate disproportionately high adverse effects on low-income populations, nor would it imply discrimination on the part of the Forest Service. National Forest System land is open to all persons equally, without regard to income level.

D-6. Several comments note the importance of tourism in general to the local economy. Specific comments include the following: a ban or restriction on helicopter landing tours would be bad for the economy; tours provide employment; instituting no-fly days would restrict the helicopter companies' ability to do business; that it is natural for businesses to grow as Juneau grows; and business profit is a valid motive for providing the tours. One comment suggests that a benefit/cost analysis would show how important the helicopter landing tours are to the local economy and would indicate the number of jobs lost and the decrease in local tax revenue if the tours were restricted.

Response: Comments noted. As noted in Response D-1, an economic analysis would not appreciably add to the information available to support a decision at this time.

D-7. Several comments note that the helicopter landing tours have negative effects on other businesses. Specifically mentioned are adverse effects on businesses that depend on the public's ability to enjoy peace and quiet in the outdoors, such as bed and breakfast establishments; negative effects on the fixed-wing tourist business; decreased business from independent travelers; and adverse impacts on non-motorized tour businesses. One comment notes that there would be economic benefits to other businesses if flights were curtailed.

Response: A discussion of the possible negative effects of helicopter landing tours on other businesses has been added to the *Environmental Consequences for Residents* section of the FEIS, Chapter 4, page 4-6.

D-8. Several comments indicate that the noise from helicopter traffic has adversely affected home values in Juneau. Several request that an economic analysis be done to demonstrate that effect. One comment says that there is no evidence of such an effect.

Response: An economic analysis would not add appreciably to the information currently available on which to base a decision; however, several realtors were contacted to discuss this potential impact. Ten realtors were contacted, and four provided responses. All four respondents gave an overall indication that helicopter noise does not generally affect property values, that they have noticed no general decline in property values, and that

they have no seasonal difficulties selling properties in the summer when the helicopter traffic is greatest.

On the other hand, the State Sellers Disclosure Law mandates that sellers inform prospective buyers if there is a problem, such as excessive noise related to the property. One realtor indicates that this mandatory disclosure has affected the marketability of at least one house near the Era helibase in North Douglas. A second realtor also noted some difficulty selling properties close to the Era helibase. Another noted a problem with airplane noise over Fritz Cove Road. The noise has not affected housing values generally, but apparently has had a negative effect on the value and marketability of specific properties. This information has been added to the *Environmental Consequences for Residents* section of the FEIS, Chapter 4, page 4-7.

D-9. One comment indicates that the rough estimate of the value of helicopter tours is inappropriate, and that an accurate, weighted average should be used, with methods and sources cited.

Response: Comment noted. The text of the FEIS has been edited to clarify the context of the estimate. As observed earlier, many of the critical issues associated with helicopter noise are qualitative rather than quantitative. That is one reason why a benefit/cost analysis is not included in the EIS. The EIS identifies the number as a rough estimate. In offering a rough estimate of the tours' contribution to the local economy, the intent is to indicate the general level of contribution, rather than the exact amount.

D-10. Several comments indicate that the benefits of the helicopter landing tours benefit only a few people and a few companies, but come at a public cost. The comments indicate that the benefits to the companies do not compensate for the harm they do to local residents.

Response: Comments noted. The helicopter landing tours do come at some public cost, and those who are harmed are not compensated; however, restricting tours would also come at a public cost—a cost to the people who are denied an opportunity to use public lands because of restricted landing opportunities on the icefield. Each alternative evaluated in the DEIS offers a different degree of balance between different public goods.

E. ADMINISTRATIVE ISSUES

E-1. A few comments indicate that special use permits should not be extended until after the EIS process is complete.

Response: Although this has been a lengthy process, the Forest Service will continue to extend the permits while the NEPA process is being completed. Until a new decision, based on this EIS, can be implemented, the deciding officer has the authority to issue permits under the prior NEPA document.

E-2. Several comments recommend the Forest Service specify the corrective actions that may be taken against operators who fail to comply with their permit requirements, and some suggest that permits be revoked for non-compliance.

Response: Special use permits include stipulations that establish minimum flight buffers over, for example, wildlife and wildlife habitat. This wildlife buffer is a guideline for flight activities. It is still the pilot's decision to fly at whatever elevation he/she needs to in order to provide aircraft and passenger safety. Forest Service monitoring during the 2001 season has identified a number of helicopter flights in the established wildlife buffers, and these will be noted in the appropriate tour company performance evaluation(s). These observations are not violations of the permit conditions, but rather

documented observations of wildlife buffer encroachments. Until the flight behavior purpose is identified, the Forest Service does not consider it a violation. If further investigation leads to findings that a pilot has flown within a wildlife buffer to more closely observe the wildlife, for example, then the Forest Service would consider it a permit violation. If further investigation reveals that a pilot has flown within the wildlife buffer to avoid other aircraft operations or to avoid flying into cloudy areas (compromising aircraft or passenger safety), then the Forest Service would not consider it a permit violation.

With respect to the future, the history of compliance is one of several criteria that may be used to evaluate companies participating in the prospectus and bid process (see Response G-1). A history of noncompliance could adversely affect a company's chances of having its permit renewed. Under certain circumstances, the Forest Service has the authority to revoke, suspend, or terminate a permit.

E-3. Several comments indicate that the DEIS is inconsistent in placing large buffers around the Juneau Icefield Research Program (JIRP) facilities and not providing the same for residents of Juneau. One comment asks that the status of the enclave noted in the JIRP buffer be clarified.

Response: There is an inconsistency in the DEIS with respect to the JIRP buffer and the approach to impacts on residents. The text of the FEIS has been changed to indicate that a 1,500 foot above ground level (AGL) buffer is recommended over JIRP activities, but is not required (see Chapter 2, Alternatives, *Mitigations for Juneau Icefield Research Program*, page 2-31).

The enclave noted in the JIRP buffer is an error that has been corrected in the FEIS. This particular landing site is in the Remote Recreation LUD where enclave developments are not allowed. The site could be used for a basic landing tour site or minor development within the LUD Standards & Guidelines; however, it would be used only if the JIRP facility were not occupied or upon negotiation with the JIRP and the Forest Service (see DEIS, page 2-28).

E-4. Several comments noted that the helicopter tour companies' performance and adherence to permit stipulations should be more closely monitored. One comment suggested that fees paid to the Forest Service be increased to help cover the costs of monitoring.

Response: Comments noted. The Forest Service has, in the past couple of years, increased mountain goat monitoring to further understanding of helicopter and mountain goat interactions. This is a continuing, multi-year monitoring program, significantly funded by "Fee Demo" fees collected from the permitted helicopter landing tour companies (nearly \$16,000 in 2001). Additionally, the Region is currently undergoing a review of the fees collected through a contractor to determine a fair market return to the Government. See also Response E-2.

E-5. One comment asserts that the scope of activities under consideration for this project necessitate a consistency determination under the Alaska Coastal Zone Management Program.

Response: The Alaska Division of Governmental Coordination has informed the Forest Service that, unless the project under consideration involves ground-disturbing construction or heliports, it is not likely to require a review under the Alaska Coastal Management Program. The DEIS cites the Forest Service/State of Alaska Memorandum of Understanding to that effect (page 1-24).

E-6. One comment suggests that a minimum of 500 to 1,000 landings should be allocated per company, so that smaller firms do not go out of business.

Response: Comment noted. The planned Prospectus and Bid System will allow all firms to compete equally.

F. ALTERNATIVES

F-1. Several comments suggest the range of alternatives is too small, that the current range of alternatives reveals a bias toward increasing the number of landings, and that there should be one or more alternatives added that would decrease the number of landings. Several comments recommend inclusion of a new Citizen's Alternative.

Response: In addition to the No-Action Alternative, the range of alternatives addressed in the FEIS includes two alternatives below the current authorized level (Alternatives B and C), two at the current authorized level (Alternatives D and E), and three at higher levels (Alternatives F, G, and H). Alternative B would reduce landings to the 1994 level before the 1995 EIS was issued. The Citizen's Alternative is addressed in Response F-6. The responsible officer has determined that the FEIS includes an adequate range of alternatives to address significant issues.

F-2. A few comments take exception to the DEIS for dropping the alternative that would concentrate all flight paths in one area. A related comment suggests concentrating landing sites so that flight routes could be concentrated.

Response: As noted in Response A-1, the Forest Service is not the authority on aircraft safety and is not prepared to substitute its judgment for that of the FAA concerning appropriate flight routes. This applies both to direct control through permit conditions or indirect control by concentrating the landing sites. The Forest Service is prepared to support the ongoing attempts of the CBJ, the FAA, and the flightseeing industry as they continue to look at alternative routes that could reduce noise in residential areas, including routes from new heliports. Because the effects of these scenarios are speculative at this time, this alternative was eliminated from further study.

F-3. Many comments spoke either in support of a particular alternative or against an alternative. Of those comments that specifically supported a particular alternative, most favored Alternative B (fewer landings), followed by Alternatives F and G (more landings).

Response: Comments noted. These preferences and reasons for each will be reviewed and considered by the deciding officer in identifying the Selected Alternative.

F-4. Some comments suggested specific changes to one or more alternatives to make them more acceptable. Specific comments include the following:

- Alternative B—should be amended to identify specific flight routes by company and to require each company to publish its schedule each year
- Alternative F—have the same wildlife buffers in the new areas as in the existing areas
- Alternative F—add more flexibility for use in the trail end buffers in the early part of the season
- Alternative F—keep Eagle Glacier closed
- Alternative F—include the Antler Glacier Lake landing tour
- Alternative F—Recalculate the 5 percent annual growth rate starting from 1999 actual landings rather than 1999 authorized landings

Response: These comments are noted and will be considered in identifying the Selected Alternative.

F-5. Several comments indicate specific conditions or restrictions that should be considered, without mentioning a specific alternative. Specific suggestions include the following:

- Limit the days of operation (6 days a week is the most common recommendation)
- Limit the hours of operation
- Limit or reduce the season length; do not expand the season length
- Do not expand into new areas
- Limit daily landings in each zone
- Concentrate all flights to a few minutes each hour
- Add buffer zones to both sides of the ridges
- End all flights by 8 p.m.

Response: These comments are noted and will be reviewed and considered by the deciding officer in identifying the Selected Alternative.

F-6. Several comments express support for the Citizen's Alternative, which is described below.

Response: As noted in Response F-1, the responsible officer has determined that the alternatives discussed in the FEIS represent an adequate range of alternatives to address significant issues. The specific elements of the Citizen's Alternative are almost all included in Alternatives B, C, or D; the status of other recommendations is noted in other responses, as noted below.

Element	Citizen's Alternative Recommendation	Included in Alternative
Number of landings	11,881 (1994 reported actual use)	Alternative B
Hours landings can occur	8:30 a.m. to 6:00 p.m.	Alternative B
Days per week landings can occur	Sunday - Friday (6)	Alternatives C and D
Days per season landings can occur	128	Alternatives C and D
Maximum number of landings per day	93	See Response F-8
Landing locations	Same as now; no new areas.	Alternatives B and C
Flight paths	Designated "good" and "poor" weather routes for each permitted company. If these routes are not flyable at minimum altitudes required, flights are cancelled for the period of time until routes are safely flyable at minimum specified altitudes.	See Response A-1
Other items	Same as Alternative B	Alternative B

F-7. Several comments indicate that certain alternatives fail to meet the Purpose and Need statement's goal of balance, do not provide adequate mitigation, or are lacking for other reasons. Specific comments include the following:

- Alternatives F and G do not address noise concerns
- Alternative E is not like the current situation because it includes more landings
- Alternative E, the Proposed Action, does not meet the Purpose and Need criterion of balance, and therefore does not meet the stated goals
- Expansion into Berners Bay under Alternatives D, E, F, and G violates the balance criterion of the Purpose and Need statement
- Alternative D fails to provide mitigation measures for increased flightseeing noise
- Alternative E fails to provide mitigation measures for increased flightseeing noise and for noise in new areas
- Snow vehicle tours under Alternative G are not consistent with the Forest Plan
- Alternative E has a bias toward tourism

Response: These comments are noted and will be reviewed and considered by the deciding officer in identifying the Selected Alternative.

F-8. Several comments suggested that permits be issued on a daily basis rather than a seasonal basis to control the number of landings that occur each day. Several comments also suggest that landing tour operators carry over their "excess" flights on bad weather days and make up for it with more flights when the weather is good.

One suggests that the benefits of issuing permits on a daily rather than seasonal basis would include predictability, i.e., flights would not be clustered far beyond the average on certain days. The comment indicates, for example, that if the landings in Alternative B were spread over 6 days per week instead of 5, leaving 128 days in the season, the average flights per day would equal 93 instead of the 114 indicated in the EIS. If the landings were capped at 93, it would limit the amount of noise exposure.

Response: The helicopter landing tour companies do indeed have more flights on some days than others, based not only on the weather but on passengers available on any given day; however, there is no correlation between the number of cruise ship passengers in Juneau and weather conditions. The number of cruise ship passengers in Juneau on any day is not dependent on the weather.

Forest Service records for 1999 through 2001 indicate the following number of landings for each company on its maximum day of operation over the 3 years:

Company	Maximum Landings	Date
NorthStar	27	June 15, 2000
Era	116	August 13, 2001
TEMSCO	142	July 13, 2000
Coastal	29	July 30, 2001

The greatest cluster of maximum operating days occurred on 3 days between July 30 and August 13, 2001.

If the 3-year maximums had all occurred on one day, the number of landings would have equaled 314, which is approximately 2.5 times the average 124 landings per day under Alternative E, the Proposed Action. This is substantially more landings than represented

by the average landings per day; however, as noted above, the maximum day of operation varies for the different firms, based on their destinations, the availability of clients, and other variables. Issuing permits on a daily rather than seasonal basis would limit the number of landings to a level below that indicated by the various alternatives, and that is not the intent of the alternatives.

F-9. Several comments indicate that the change in the definition of season length skews the presentation of landings/season, and that the longer season is inappropriate. Several also suggest revisions to Table 4-1 of the DEIS to compare alternatives using the season length as it was defined in the base year, 1999.

Response: The FEIS, including Table 2-10 (Page 2-35) and Table 4-1 (Page 4-2), has been revised to clarify the method for calculating the number of landings per season. It now shows the relevant numbers based on the active tourism season defined in the DEIS (May 1 – September 30).

The EIS has considered capacities and limitations for a time period during which visitor numbers are high enough to adversely affect residents, recreationists, and natural resources. The majority of clients participating in helicopter landing tours are cruise ship passengers. The cruise ship schedules indicate many “high number days” in early May; also, May 1 is now considered the unofficial “first cruise ship arrival” day. In defining the primary use season, we have taken this trend into account, along with the fact that actual visitor impacts to resources and the community occur during early May and late September.

F-10. Several comments indicate that support flights should be included in the total number of landings allowed and that the support flights be restricted to the same hours of operation (for instance, not late at night or early morning).

Response: The Forest Service has elected not to include support flights in the overall total because they are a small percentage of the total number of flights. Support flights are discussed in the *Cumulative Effects* section in Chapter 4 (page 4-33) of the FEIS.

F-11. Several comments suggested that no new limits should be placed on tours. Items specifically addressed include not limiting the days and hours of operation, not excluding landings between November and March, and not precluding trips based on duration.

Response: These comments are noted and will be reviewed and considered by the deciding officer in identifying the Selected Alternative.

F-12. One comment indicates that Alternatives B through G do not protect quiet and solitude and would not “conduct activities in a way that minimizes adverse impacts to popular or highly valued local areas with outfitter/guide operations,” as called for in the Standards and Guidelines for Recreation. The comment indicates that they are, therefore, not compliant with the Forest Plan.

Response: The Standards and Guidelines have many stipulations, and all must be achieved with some degree of compromise. The Standards and Guidelines also require that the Forest Service work with outfitters and guides to provide opportunities for forest use. No single requirement can be met at the expense of others. The range of alternatives addressed in the EIS allows for the tradeoffs between more quiet and solitude versus more accommodation of those desiring helicopter access to the Juneau Icefield and the services of the helicopter landing tours.

F-13. One comment indicates that Table 2-1 erroneously states that the No-Action Alternative is not consistent with the Forest Plan. The comment says that the Forest Plan is permissive in nature and that it allows, but does not require, that any activity be

permitted. It concludes that “if landing tours were not allowed as in Alternative A, then no activity would occur on the National Forest and it would be consistent with the Forest Plan.”

Response: The following discussion may help readers understand the determination that Alternative A is inconsistent with the Forest Plan. This EIS is a special use authorization project and was proposed to respond to requests from outfitter guides (the four helicopter tour companies). The Forest Service is directed (TLRMP 4-37, REC122) to: “Work with recreation service partners and the tourism industry in identifying and developing services and opportunities. Recreation service partners provide services and opportunities that supplement the use and enjoyment of the national forests by a variety of people. ...” REC-122 further directs the Forest Service to “facilitate authorizing commercial recreation use, services, and developments by: (1) Authorizing commercial recreational developments and services where there is a public need, and no private lands are available or suitable for development.” The Juneau Icefield is a unique geologic land formation on the Tongass National Forest and has a history of being a popular and memorable experience for tourists choosing to purchase a commercial helicopter landing tour. These considerations support the conclusion that the No-Action Alternative, which would permit no landings on the icefield, would not be consistent with the Forest Plan.

F-14. One comment requests that the flight routes of each operator be identified, and that the Forest Service require operators to publish their schedules.

Response: The FEIS includes a new figure (Figure 1-7) that indicates the current primary normal weather and poor weather flight routes, developed with the FAA as part of the operators’ involvement in the Juneau Tour Operators’ Best Management Program. They are not identified by individual operator, however.

F-15. Many comments were received offering generic positive comments about the helicopter landing tours. Specific comments note that National Forest System land is open to all; that the icefield is a beautiful, unique environment that should be accessible to people; and that the helicopter tours provide access to all. Others state that the tour companies are good neighbors, providing employment and educational opportunities without doing environmental damage to the glaciers. Some of these comments also suggest that the landings be expanded to more remote areas, that the number of landings be increased, or that no additional restrictions be placed on the tours.

Response: Comments noted. These comments will be reviewed and considered by the deciding officer in identifying the Selected Alternative.

F-16. Many comments offer generic negative comments about the helicopter landing tours. Specific comments note that there is a need to reduce the noise, and the only way to do that is to reduce the number of flights and landings. Most of these comments do not specify the level to which landings should be reduced, but a few suggest specific levels, such as the 1996 level when there were 500,000 cruise ship passengers. Others suggest that quiet days be implemented and that the landing areas not be expanded. Several comments indicate that the helicopter companies are not good neighbors, and that the tours provide benefits to a few while negatively affecting many others. Two of the comments suggest that the negative effects on residents should receive more weight than the benefits to one-day tourists.

Response: These comments will be reviewed and considered by the deciding officer in identifying the Selected Alternative. The public response to this EIS clearly demonstrates that the noise associated with helicopter landing tours is a problem for many residents. Alternatives B and C of the EIS include reduced landings compared to the current authorized level, and include both quiet days and no extension of the area where landings can occur.

F-17. Several comments suggest that the Antler Glacier Lake landing not be allowed so as to protect the area's wildlife and existing recreational setting.

Response: Comments noted.

F-18. Some comments suggest that the Antler Glacier Lake landing should be allowed.

Response: Comments noted.

F-19. Several comments spoke against allowing snow vehicle tours on the icefield, or allowing them only if they could be located beyond the sight and hearing of residents and those in non-motorized recreation areas. One comment noted that the sight of snow vehicles could detract from the pleasure of flightseeing.

Response: Comments noted.

F-20. Some comments spoke against allowing dogsled tours on the icefield, indicating that 180 doghouses could not blend in with the glacier environment.

Response: Comments noted. The Forest Service has and will continue to require that facilities, including doghouses at the enclave development sites, are to be white so they blend in with the icefield environment. Compliance with this permit requirement is achieved by unannounced monitoring visits to the dogsled mushing camp operations and follow-up performance evaluations. The Forest Service has received no complaints regarding non-compliance on this issue.

F-21. One comment suggests that the base year for comparing alternatives be changed to the 1999 actual landing level rather than the 1999 authorized level.

Response: This change has not been made. Changing the basis would not make the differences between alternatives any more clear.

G. REQUESTS FOR ADDITIONAL INFORMATION IN THE EIS

G-1. Several comments state support for the prospectus and bid system, or request that additional information about the system be included in the FEIS.

Response: Additional information about the prospectus and bid system has been included in the FEIS, Chapter 1, page 1-10, and Chapter 4, page 4-7. Appendix D includes a sample prospectus and bid process.

G-2. Several comments recommend that additional information be added to the cumulative effects analysis. Specific comments recommend adding floatplane tours, guided raft trips, other forms of guided trips for cruise ship passengers, and various mechanized activities.

Response: The cumulative effects analysis has been modified to refer to these types of impacts. Quantified data are not available for many activities, however. Cumulative effects relate only to impacts similar to what is caused by this action.

G-3. Several comments indicate that data for 2000 and 2001 should be included in the EIS.

Response: Data for 2000 and 2001 have been added wherever the data are available.

Appendix E

G-4. Several comments indicate that the DEIS is flawed because it does not contain a social analysis as specifically required by the Forest Service Manual and Handbooks, sections 1900. One comment notes the following:

Forest Service Manual section 1973.03 mandates social impact analysis if potential social effects of agency policies or actions are important to the decision. (Forest Service Handbook [FSH] 1909.17, Chapter 30.1[3]). Social variables are explained and listed in Chapter 33, including esthetic and amenity ties to forest lands, attitudes, beliefs and values, social organization, land-use patterns, lifestyles, recreation preferences, degree of privacy/isolation, relationship of lifestyle to infrastructure and forest resources, public conceptions of appropriate uses of forest land, scope and intensity of demonstrated support or opposition to the proposed action, customs and traditions in the affected area, local perceptions of incoming workers, recreationists, or retirees with different lifestyles, attitudes about economic development by outsiders, social organization ...

Response: The DEIS acknowledges the potentially significant impacts of noise on residents in numerous places, including the discussion of significant issues (page 1-18), the discussion of mitigation recommendations and mediation efforts (page 1-26), and the discussion of noise effects on residents (page 4-2) and recreationists (page 4-10).

The Forest Service policy reference concerning the analysis is found in Forest Service Manual (FSM) 1900 – Planning, Amendment No. 1900-92-2, Chapter 1970 – Economic and Social Analysis, part 1970.6 (page 5):

1970.6 - Scope of Analyses. The responsible line officer determines the scope, appropriate level, and complexity of economic and social analysis needed. In many planning and management situations, certain laws and regulations or Forest Service policy specify analysis requirements (FSM 1901, 1903). In other situations, the scope and depth of analyses depend on the potential effects of the program or project planned or under review.

The Juneau District Ranger, the responsible line officer for this project, has determined that the best information currently available should be used, such as the McDowell Group surveys and CBJ Web polling (CBJ, 2001) by Egret Communications (see FEIS Chapter 4, pages 4-6 and 4-7).

G-5. Several comments indicate that the project area should include Douglas Island and the Taku River watershed.

Response: For the FEIS, the analysis area has been expanded to include the area shown in Figure 1-2 and subsequent figures, which includes Douglas Island. Although some flights to the icefield access via Taku Inlet, the Taku River watershed is outside the project area.

G-6. Several comments indicate that non-landing tours should be quantified, both under the No-Action Alternative and other alternatives, and in the cumulative effects analysis.

Response: Additional information has been collected with respect to flightseeing-only tours, as follows:

Company	1999	2000	2001
TEMSCO	Approximately 100 people, at 1 to 6 persons per flight.	Approximately 100 people, at 1 to 6 persons per flight.	Approximately 100 people, at 1 to 6 persons per flight.
Era	0	0	0
Coastal	17 flights	15 flights	20 flights
NorthStar	0	1	0

Assuming an average of 3.5 persons per TEMSCO flight, that would equal 29 TEMSCO flightseeing-only flights, for a total of 45 to 50 flights per year offered by these companies. Estimates from other companies that may offer flightseeing-only flights are not available. At any rate, it is a very small number compared to the helicopter landing tours. This information has been added in the FEIS, Chapter 4, *Environmental Consequences for Residents* (page 4-7) and to the cumulative effects discussion (pages 4-33 and 4-34). It is not possible, however, to predict how many people might choose these flights if the landing tours were not available, or if there were not enough tours available to meet the demand of those willing and able to pay for them. The non-landing tours, therefore, have not been quantified under the No-Action Alternative and other alternatives.

G-7. A couple of comments indicate that the DEIS ignores the concept of soundscape, offers no formal soundscape protection measures, and does not identify ROS classes that address the presence or absence of sounds of human activity. One of the comments suggests that a soundscape survey is needed.

Response: In contrast to the National Park Service, the Forest Service has not adopted the concept of soundscape into its management policies. The description of the acoustical environment on pages 3-14 through 3-25 of the DEIS includes measurements of ambient (background) noise levels, as well as the contribution of aircraft to the existing noise environment.

G-8. Some comments note that the DEIS includes inadequate data on current levels of activity, noise, and flight routes.

Response: The FEIS includes more detailed information on current levels of activity (Table 1-1), as well as the flight routes used by helicopter landing tour operators (Figure 1-7). The DEIS, by citing at length both the 1999 and 2000 noise studies, adequately portrays the existing noise environment.

G-9. One comment indicated that more information is needed about the activities on the icefield and the impacts of those activities.

Response: The list of proposed icefield activities is included on page 1-15 of the DEIS. Information concerning special use permit conditions imposed on the permittees has been added to the FEIS in Appendix C and to the *Introduction* in Chapter 4, *Environmental Consequences*. Given those conditions, no effects on the icefield are expected other than those discussed in the DEIS in the context of environmental consequences to recreationists, DEIS pages 4-9 through 4-19.

G-10. Some comments suggest that the EIS count overflights as well as landings.

Response: As noted in the *Glossary* of the DEIS, each landing represents an equivalent number of round trips; that is, one flight out and one flight back equals one landing (page 5-11). Landings and customer service days are the two units of measure used to allot and track permits. It would not appreciably add to this analysis to count overflights.

Overflights not associated with the landing tours are considered in *Cumulative Effects* in Chapter 4 of the EIS (DEIS page 4-27, FEIS page 4-34).

G-11. One comment indicates that there is no discussion of the noise impacts of overflights in new areas.

Response: Please see DEIS page 4-23.

G-12. A couple of comments suggest that the EIS needs to address the energy requirements of each alternative.

Response: Annual fuel requirements (in gallons) under each alternative have been added to the FEIS Chapter 4, page 4-36.

G-13. One comment suggested that the EIS address the effects of the alternatives on air quality.

Response: The FEIS provides a brief description of the air quality impacts of each alternative in Chapter 4, page 4-32.

G-14. One comment indicates that the maps of alternatives reveal few differences among the alternatives.

Response: Please note that maps are not necessarily the most effective means of presenting quantitative data. In the case of the figures in Chapter 2, the key differences among the alternatives are presented in the written descriptions of these alternatives and in Table 2-1.

G-15. Several comments assert that creation of noise by helicopter overflights constitutes an irreversible and irretrievable commitment of the acoustic environment. Others identify decreased property values and reduced business income as irreversible and irretrievable losses and state that these should be addressed in the EIS.

Response: An irreversible commitment is defined as the loss of future options on the use of non-renewable resources (e.g., minerals), and an irretrievable commitment is defined as the loss of production, harvest, or use of renewable resources (FSH 1909.15.05 definitions). Quiet is a renewable resource, and it is fully restored the moment any unwelcome sound becomes inaudible. With regard to economic impacts, data are not available to demonstrate negative effects of helicopter noise on businesses (see also Response D-8); however, if such effects were to occur, they could be construed as an irretrievable loss of monetary resources. This information has been added to the *Irreversible and Irretrievable Commitment of Resources* discussion in the FEIS, Chapter 4, pages 4-35 and 4-36.

G-16. One comment requests more information about the Forest Service's continued efforts to develop feasible solutions and define mitigating measures.

Response: Comment noted. Additional information on mitigation measures has been added to the FEIS in Chapter 2, in the *Mitigating Measures and Conditions Common to all Action Alternatives* section (beginning on page 2-20). The *Mitigation Recommendations and Mediation Efforts* section in Chapter 1 of the FEIS has been expanded to include information regarding the Citizen's Initiative (page 1-31), the 1998 McDowell Group survey (page 1-31), and alternative heliport sites (page 1-36).

G-17. One comment requests that more information be provided concerning tour duration.

Response: The information provided in the DEIS (Chapter 1, *Proposed Action* section, page 1-10) is adequate to understand the activities that are occurring and are being

proposed on the icefield. Additional information concerning tour length would not add to the decisionmaker's ability to distinguish between alternatives, or provide information useful to determining the effects of alternatives.

G-18. One comment requests more information about the location of new landing areas north of the 1995 EIS boundary and about the activities proposed for those areas.

Response: Proposed flight routes and landing sites in the new areas are identified in Figure 1-5 of the DEIS. The same activities are proposed in these areas as in the rest of the analysis area, and are described on pages 1-10 through 1-17 of the DEIS.

G-19. One comment requests more information about the effects of the alternatives on cruise ship arrivals in Juneau.

Response: At this time, it is not possible to determine whether passengers in Seattle or Los Angeles or other ports would be more or less likely to board cruise ships if a greater or smaller number of helicopter tours were available. Numerous other factors have considerable impact on the number of tourists arriving in Juneau by cruise ship. Chief among these are the state of the economy and the cost of berths on cruise ships. It is likely that these factors have more influence over cruise traffic than the availability of helicopter tours. Therefore, the analyses in the EIS are sufficient to allow the public and the decisionmaker to come to a reasoned conclusion about the relative merits of the different alternatives.

G-20. One comment states that the EIS fails to give adequate consideration to nonquantifiable impacts.

Response: Please see Responses D-1, G-4, and I-4.

G-21. One comment notes that several additional planning documents should be considered in the analysis. The comment suggests that useful information can be found in the following: the Juneau Parks and Recreation Comprehensive Plan (1996), the Alaska Department of Natural Resources (1993) Juneau State Land Plan, and the Mendenhall Recreation Area Plan.

Response: These documents are part of the planning record and were reviewed during preparation of the FEIS. References to these documents were not added to the FEIS.

H. EFFECTS TO RESIDENTS

H-1. Many comments emphasize the generally negative impact of noise on the quality of life of residents or focus on the importance of particular impacts on residents. These comments include statements that noise has social impacts on the community; that noise hinders learning and interferes with sleep, work, convalescence, and communication; that noise is extremely annoying; and that it destroys family time. Others note the noise disturbance in particular neighborhoods, such as North Douglas, Twin Lakes, the Mendenhall Peninsula, and Auke Bay.

The overall message of many of these comments is that the noise is unbearable and inescapable because it is everywhere. Several suggest that the EIS downplays these effects even though they are attested to by the many public complaints about noise. For example, one comment cites the McDowell Survey report results, which show that 81 percent of respondents wanted the same or fewer flights in the area. Some say that their neighborhood sounds like a war zone.

Response: The impact of noise on residents is a significant issue, as discussed in the EIS. Additional information has been added to the FEIS, Chapter 4, the *Environmental Consequences for Residents* section (beginning on page 4-3), to more fully and forcefully characterize the negative impacts and the feelings of many residents. Results of recent CBJ polling (CBJ, 2001) by Egret Communications have also been added to the FEIS (page 4-6), which help to characterize both the magnitude of the problem and the differences of opinion that exist in the community.

H-2. Several comments indicate that the noise in Juneau is not that big a problem, saying that noise is part of an urban environment or that the negative effects of noise are exaggerated. One comment noted that subdivision construction near a landing site belies the claims of adverse noise effects, and one cites the Durden report as saying that the noise level in Juneau is not a health hazard and is not incompatible with housing.

Response: Comments noted. See also Response H-1.

H-3. One comment indicates that the description of area residents is incomplete, and is biased because the concluding paragraph dismisses aircraft noise.

Response: According to 40 CFR 1502.2 (g), an EIS is designed to disclose and assess the environmental impacts of a proposed action, not present arguments that one point of view is right or wrong.

Preparers of NEPA documents highlight issues of greatest concern by presenting them at the beginning of a discussion and include alternative interpretations later on. Thus, the first part of the discussion highlights those who are adversely affected by the noise, and the last part of the discussion acknowledges that not everyone objects to the noise. Nonetheless, the text in Chapter 4 of the FEIS, under *Environmental Consequences for Residents* (beginning on page 4-3), has been revised to more forcefully acknowledge the adverse effects of noise on residents. See also Response H-1.

H-4. Several comments indicate that residents deserve peace and quiet in their homes and neighborhoods, and should be protected from harassment, much as marine mammals and other wildlife are protected.

Response: The purpose of an EIS, according to 40 CFR 1502.2(g), is to disclose and assess the environmental impacts of a proposed action. The EIS fulfills this purpose by acknowledging that the adverse effects of helicopter noise on residents is a significant issue, and indicates how various alternatives would increase or decrease that level of impact.

H-5. Several comments suggest that the annoyance curve shown for recreationists (Figure 4-2) is probably more representative of Juneau residents than the residential annoyance curve (Figure 4-1). Other comments suggest that the effects on humans are similar to the effects on wildlife, such as causing stress and the adverse effects that go with it.

Response: The Forest Service has used generally accepted research, as cited in the 1999 and 2000 noise studies, to characterize how different groups of people typically respond to noise. See also Response H-4.

H-6. Several comments note that the loudness and duration of the noise vary from neighborhood to neighborhood, and that the noise studies cited in the EIS and the various surveys that have been done do not adequately account for those variations.

Response: Although the 1999 and 2000 Noise Assessments cited in the DEIS do provide differentiation among the noise levels in different neighborhoods, some of the other

studies (such as the 1998 McDowell Group survey) do not. The Forest Service has used the best available information in the EIS.

H-7. Several comments concerning noise impacts on residents focus on the specific attributes of the noise that are so disturbing, noting especially that it is the duration and frequency as well as the loudness that is disturbing, and that residents are bothered by more than just the number of helicopters flying at one time.

Response: Comments noted. The DEIS discusses all these facets of noise, including the duration, frequency, and loudness, specifically in Chapter 3, the *Acoustical Environment* section (page 3-14 through 3-25) and Chapter 4, the *Changes in Acoustical Environment* and *Environmental Consequences for Residents* sections (pages 4-1 through 4-5).

H-8. Several comments focus on the impacts that changing the number of landings and flights would have on neighborhoods. One comment points out that increasing the number of flights would increase the deviations from established routes and increase the disturbance to residents.

Response: Comments noted.

H-9. One comment indicates that the number of residences within 1 mile of flight routes should be quantified.

Response: The recently released *Alternative Heliport Site Analysis* (Michael Baker Jr., Inc. and BridgeNet International, 2001) sponsored by the CBJ has information concerning the proximity of residential areas to flight routes. According to the report, there are 2,260 residences in the 6,000-foot (1.1-mile) noise corridors along current helicopter flightseeing routes originating from the Juneau Airport and 3,777 residences in the 6,000-foot noise corridors for tours out of Era's heliport. This information has been incorporated into the FEIS, page 3-1.

H-10. An attachment to the comment letter from a local environmental organization quotes the comments of 46 individuals and families, taken from the scoping record. The comments describe many negative impacts of noise, including impacts on residents, recreationists, and wildlife.

Response: Comments noted. These comments have been considered throughout the NEPA process.

H-11. One comment asserts that the analysis of sleep interference in Chapter 4 is incomplete and unsupported by data.

Response: The DEIS acknowledges that helicopter noise may interfere with sleep for some residents and indicates how various alternatives would increase or decrease that level of impacts. The observation that flightseeing tours take place during the day, and the associated assumption that most residents sleep at night, are self-evident and do not require supporting data.

H-12. One comment states that the DEIS fails to give adequate consideration to the effects of noise on general health, citing several studies and a set of guidelines from the World Health Organization.

Response: Many studies have documented the potential adverse impacts of aircraft noise on general health. The DEIS cites several of these. The DEIS recognizes the adverse effects of helicopter noise on residents as a significant issue and indicates how various alternatives would increase or decrease the level of impacts.

H-13. One comment calls into question the applicability of a study (Meister and Donatelle, 2000) cited to document the potential adverse effects of noise to general health, noting that the study may have been conducted in a part of Minnesota that is less rural than the Fritz Cove Road neighborhood.

Response: The purpose of citing Meister and Donatelle (2000) was to disclose the fact that noise can have real and measurable impacts on a community's general level of health. It is likely that a similar study would produce similar results if conducted in the CBJ, although the magnitude of effects may differ. The DEIS recognizes that the adverse effects of helicopter noise on residents is a significant issue and indicates how various alternatives would increase or decrease the level of impacts.

I. EFFECTS TO RECREATIONISTS

I-1. Several comments note generally negative effects of noise on hikers and other recreationists in the area. They indicate that the noise impairs the quality of the recreation experience, and that the helicopters are intrusive and disruptive. One notes that visitors, especially independent travelers, notice the noise and comment on how annoying it is. Others indicate that they no longer hike in the area, or restrict their hiking to days when they think the noise will be tolerable.

Response: Comments noted. The DEIS discusses these negative effects on recreationists specifically in Chapter 4, the *Environmental Consequences for Recreationists* section (pages 4-9 to 4-12).

I-2. One comment indicates that the writer participates in unguided activities on the icefield, and doubts that more flightseeing activity would adversely affect that experience. Another comment suggests that helicopter flightseeing has no apparent effects on recreationists.

Response: Comments noted.

I-3. Several comments indicate that better trail use data are needed to correctly identify the impacts of overflights on trail users. One comment also suggests that more data are needed to quantify the effects of noise on other recreationists, such as berry pickers, kayakers, campers at the Mendenhall Glacier campground, and so on.

Response: The DEIS uses the best available data. Consistent with CEQ direction that an EIS should be analytic rather than encyclopedic (40 CFR 1502.2 (a)), the discussion of environmental consequences for recreationists focuses on the relative effects of different levels of flight activity. It is clear that increased levels of flightseeing activity would result in increased disturbance to other recreational users of the Tongass National Forest. The task, here, is to find an approach that minimizes negative impacts while at the same time fulfilling the responsibility to give fair and full consideration to special use permit applications.

A precise count of actual users of each trail is not essential to a reasoned choice among the alternatives. The purpose of this document is to allow the decisionmaker and the public to assess the relative merits of the alternatives. By acknowledging the likelihood that increased levels of permitted landings would result in increased disturbance of recreation users, this EIS fulfills its purpose.

I-4. One comment indicates that the National Park Service annoyance curve is not applicable to National Forest System recreation users because the curve does not represent the local experience, where long time residents expect quiet, but instead are exposed to frequent, annoying overflights.

Response: The purpose of the National Park Service annoyance curve (Figure 4-2) is not to present an absolute scale against which the effects of the alternatives should be measured. Rather, it is included as an illustration of the trend of increasing rates of annoyance with increasing noise levels, and of the greater sensitivity of recreationists to noise, compared to residents.

As stated in Chapter 1 of the DEIS, the units of measure for comparing the effects of the alternatives on recreation include proximity of flights paths to particular recreation areas and frequency, hours, and days of operation. By presenting these values and describing the potential effects of the alternatives relative to one another, the EIS fulfills its purpose of disclosing significant environmental impacts and informing decisionmakers and the public of reasonable alternatives that would avoid or minimize adverse impacts.

I-5. Several comments suggest changes to the trail end buffer zones or ask for clarification of what the buffer zones are intended to accomplish. One comment notes that the trail buffer exceptions are reasonable, while another notes that the exception for the southerly section of Montana Creek Trail should be eliminated.

Response: The status and purpose of trail end buffers has been clarified in the FEIS, page 2-7. They are intended to provide a no-landing zone near trail ends in order to reduce recreationists' exposure to noise when they have reached their trail-end destination. This is implicit in the discussion of the effects of the alternatives on recreationists, but was not stated directly in the DEIS. No such buffers are currently in place.

No additional or expanded buffers have been added to the FEIS analysis. In most cases, the buffers described in the DEIS are as large as possible in the specific locations without eliminating important early season landing sites completely.

I-6. One comment noted that the *Introduction* to the *Environmental Consequences for Recreationists* section is encyclopedic rather than analytic, and includes conflicting viewpoints.

Response: Comment noted. The intent of the *Introduction* to the discussion of *Environmental Consequences for Recreationists* is to identify the range of concerns. Pages 4-10 through 4-19 of the DEIS contains the analytic discussion of the effects of each alternative. Also, please see Response H-3.

I-7. One comment indicates that the potential effects of multi-landing tours should be identified, and that Forest Plan standards do not mention anything about multiple landings, but only the number of landings allowed per site on a daily basis.

Response: The Forest Plan does not discuss multiple landings, but restricts the number of landings per site per day. As noted throughout the EIS, the primary effects of the tours are the noise impacts to residents, recreationists, and wildlife. These effects vary by the number of flights, not the number of landings per tour, and are therefore adequately represented by the existing discussion of effects.

I-8. One comment notes that the analysis of environmental consequences for recreationists does not discuss the possibility of "zoning" certain areas for mechanized uses, reserving other areas for the enjoyment of "natural quiet."

Response: The concept of zoning is incorporated into the EIS by means of the range of options available under the alternatives. For example, a particular area may be open to landings under one alternative but not under another. In addition, to a certain extent, zoning is already a planning element on the icefield: snow machines, for instance, can be permitted only within areas with a LUD of Semi-Remote Recreation.

EFFECTS TO WILDLIFE

J-1. Many comments are general observations, or agree or disagree with statements made in the DEIS.

Response: These comments are noted.

J-2. Several comments suggest helicopter tours have no impact on wildlife.

Response: Comments noted.

J-3. Several comments indicate the Forest Service misrepresented the mountain goat Standard and Guideline in the Forest Plan. Other comments say that flying or landing within either the 1,500-foot buffer of summer goat habitat or the 1-mile buffer of wintering or kidding habitat violates the mountain goat standard and guideline in the Forest Plan.

Response: Language relative to the mountain goat standards and guidelines in the Forest Plan has been clarified in the FEIS Chapter 2, *Mitigating Measures and Conditions for Wildlife* section, pages 2-26 and 2-28.

Flights do not have to maintain the Forest Plan buffers 100 percent of the time to be consistent with Forest Plan Standards and Guidelines. The mountain goat standards and guidelines in the Forest Plan state these “buffers” will be met “where feasible” (see Appendix B, page B-43 for complete standards and guidelines). Meeting these guidelines may not be feasible due to snow or ice conditions on the glacier, or when low ceilings prevent flights beyond the periphery of the icefield or 1,500 feet above ground level. The snow at landing sites must be firm enough to safely support landings. In the early season, these conditions often occur only near the toe of the glaciers, adjacent to goat kidding areas. For specific activities, such as ice climbing, only a few locations exist on the icefield where safe landing sites occur adjacent to desirable climbing spots. On some days, low ceilings may allow flights to be conducted safely, but ceilings are not high enough to meet the mountain goat buffers. See also Response A-1.

The only location within the project area where landing sites occur outside the 1-mile buffer on winter and kidding habitat is the lower Taku Glacier. Concentrating all landings by all companies at this site is not feasible (see further discussion in Chapter 2 under *Alternatives Eliminated from Detailed Study*).

The intent of this guideline is to provide for the long-term productivity of mountain goat habitat and viability of mountain goat populations. Information gathered on goat productivity and habitat use in the project area indicates this intent is being met. Additional new information was gathered during 2001, since the DEIS was written, that further supports this. Some of this new information is included in the FEIS. A more detailed report will be available to interested parties.

Behavioral observations, habitat use information, and aerial surveys have been conducted by the Forest Service on mountain goats near the icefield during the past 3 years. Results from behavioral observations indicate little disturbance is occurring from current levels of helicopter activity relative to other published studies (see FEIS pages 4-26 to 4-28). Habitat continues to be used by goats under and adjacent to flight routes and landing sites, some for as long as 18 years. This includes kidding habitat. Results from these aerial surveys, when compared to similar surveys conducted by the Alaska Department of Fish and Game during the 1970s and 1980s, indicate goat populations are stable or increasing in areas where helicopter flights are occurring. No significant difference in productivity (% kids) was found between areas on the icefield with helicopter tours and adjacent non-tour areas on both the icefield and the Chilkat Range in 2001 (Table 4-2, page 4-27).

Under all alternatives, special use permits would include recommendations for 1,500-foot minimum overflight distance from mountain goats, but in some cases maintaining the 1,500-foot buffer may not be feasible for flight safety reasons.

J-4. Several comments suggest that further studies should be conducted on potential impacts to wildlife (goats, bears, wolves), or that not enough detail or analysis was provided in the DEIS.

Response: The best information available was used to evaluate alternatives in the EIS. The scale of this project, in conjunction with current monitoring efforts, is appropriate to evaluate current proposals for helicopter activities, including all alternatives in this EIS.

Some additional monitoring data and other detail has been added to the FEIS. A 3-year regional study was initiated in 2001, in conjunction with the Chugach National Forest, which is focused on investigating the impacts of helicopter overflights on mountain goats. Biologists with the Forest Service, ADF&G, University of Alaska-Fairbanks, and Utah State University peer-reviewed the study plan. The study plan was implemented after the DEIS was written. Progress reports from this new study will be shared with interested parties. Preliminary findings do not indicate that conclusions in the DEIS would change. Relevant new information will be incorporated into permits when it becomes available and when warranted.

Please see also Response J-2.

J-5. Several comments state that sufficient data have not been provided to substantiate the claim of goat habituation to helicopter overflights on the Icefield.

Response: The term “habituation” is used to mean the increased tolerance of goats to helicopter overflights without exhibiting negative impacts to individuals or their population. Habituation is difficult to demonstrate experimentally, but evidence from several sources suggests that it has occurred to goats on the icefield. Icefield goats do not react as negatively to overflights as goats have in other areas (see Table 4-2 in the FEIS). Habitat beneath and adjacent to flight paths continues to be occupied. Goat populations appear to be stable or increasing. Productivity (% kids) does not differ between the icefield areas adjacent to helicopter activity and those with no helicopter tour activity.

J-6. Several comments suggest the mountain goat habitat capability model used in the DEIS needs to be updated, lacks sufficient data to support it, or was not applied properly. Other comments question the model results depicted on figures (maps) as “Mountain Goat Habitat Buffer.”

Response: The Forest Service is required by the Forest Plan to use the most recent version of the interagency mountain goat habitat capability model. Portrayal on the maps in the DEIS is different from those in the 1995 EIS. The 1995 maps showed only habitat, while the DEIS maps add the 1,500-foot buffer to these polygons. This is why much of downtown Juneau is portrayed within these polygons. The output from the model correlates well with goat observations made by ADF&G, the Forest Service, and helicopter companies. Actual observations on the downtown side of Mt. Juneau and Gastineau Peak, as well as observations within 1,500 feet of Twin Lakes, confirm this habitat is still being used.

Models are used as tools to help analyze problems, but are not the only tool used. In areas where this model indicates problems might occur because of the proximity between flight paths or landing sites and goat habitat use, the model results are followed up with either aerial survey or on-the-ground observations. These actual observations are too numerous to portray on a map of the scale in the EIS, but are available on file at the

Juneau Ranger District office. The model does portray some habitat that is probably rarely used, but these areas tend to be further back on the icefield, and thus are not relevant for landing sites or flight routes. The current model will be updated in collaboration with other agencies, if and when appropriate data are available. Language in the FEIS has been changed to clarify how the model was used.

J-7. A couple of comments recommend consulting literature not cited in the DEIS.

Response: These sources have been reviewed and relevant information has been incorporated into the FEIS.

J-8. Several comments suggest there is no need to increase wildlife buffers in new areas.

Response: Comments noted. A range of alternatives was analyzed in the EIS, and an appropriate range of wildlife buffers was used, based on the scientific literature.

J-9. One comment indicates wildlife buffers for sea lions on Benjamin Island would not be met.

Response: Proposed flight paths do meet the buffer required at the sea lion haul out on Benjamin Island. This may be difficult to determine at the scale of the map.

J-10. One comment mentions that swans visit Moose Lake and need to be protected from helicopter activity in the area.

Response: Swans often use the Dredge Lakes area, including Moose Lake, as a stopover during spring and fall migration, but not during nesting or brood rearing. Helicopters can be seen and heard from there, but are unlikely to cause disturbance because they are too distant, even when the weather is poor.

J-11. Several comments took exception to the statement that habitat for red squirrel, marten, river otter, Sitka black-tailed deer, Vancouver Canada goose, red-breasted sapsucker, hairy woodpecker, brown creeper, and northern goshawk generally does not occur near flight routes or landing sites.

Response: This statement has been changed in the FEIS, pages 3-10 and 4-23. Flight routes are located above habitat of these species but are generally high enough above the ground that disturbance is unlikely. Habitat for these species does not occur near landing sites. Overflights may occasionally affect individuals or habitat, but are not likely to affect the viability of populations or species.

J-12. One comment requested information about the results of recent studies on the impacts of helicopter flights on goat populations.

Response: The study results are discussed in the FEIS, *Observations Near the Juneau Icefield*, pages 4-26 to 4-28.

J-13. Several comments indicate that the mitigation measures for mountain goats are not very clear.

Response: The mitigation section for wildlife has been rewritten in the FEIS (see page 2-26 and 2-28, and also Response J-2).

J-14. One comment asks about other regulations addressing the impacts of overflights on wildlife.

Response: State and Federal regulations prohibit "harassing" wildlife with aircraft (see references to Section 5 of the Alaska Administrative Code and the Airborne Hunting Act, pages 1-23 and 1-25 of the DEIS).

J-15. One comment requested we reconsider landings at Antler Glacier Lake, indicating animals there would become habituated to the flights.

Response: These landings were considered as part of the EIS process. Also see Response J-4, regarding habituation.

J-16. Some comments suggested not all mountain goat kidding habitat was identified in the DEIS.

Response: The DEIS states “kidding habitat occurs throughout the project...” (page 3-10). The figures in the DEIS depict only the kidding habitat that had been surveyed and documented up to the time the DEIS was published. Kidding likely occurs in other areas that had not yet been surveyed and documented. Information collected during 2001 has documented kidding in many areas not portrayed on figures in the DEIS. The FEIS has been updated with the most current data available through the 2001 surveys and monitoring efforts (FEIS page 4-28).

J-17. Some comments indicate we are confusing monitoring of wildlife disturbance with mitigation to minimize disturbance.

Response: This has been clarified in the FEIS, page 2-28. The intent is to use monitoring to determine if additional mitigation is necessary.

J-18. One comment questioned applying recommendations from the Côté (1996) study on mountain goats in Alberta to the Juneau Icefield, and suggested current buffers were adequate.

Response: Differences between conditions in the Côté (1996) study and helicopter tours on the Juneau Icefield were considered during the process of designing buffers for mountain goats in this area. Côté used box traps, not helicopters, to capture goats for marking purposes during his study. Please note the Foster and Rahe (1983) study made similar recommendations, and these are the only two published studies of the effects of helicopter overflights on mountain goats. A range of buffer distances was considered in the EIS.

J-19. One comment asks for nesting and brood rearing dates for swans and sandhill cranes.

Response: These dates for swans are on page 3-13 of the DEIS. Sandhill cranes migrate through this area, but do not nest.

J-20. One comment requests clarification on trumpeter swan Standards and Guidelines.

Response: The Standards and Guidelines for trumpeter swans in the Forest Plan (also found in Appendix B of the FEIS) refer to developments near nesting and brood rearing habitat. Helicopter overflights are not considered developments. Flight routes near swan habitat would occur at sufficient altitude to avoid disturbance.

J-21. One comment questions the way data are being collected on mountain goat kidding habitat use near helicopter landing sites.

Response: It is difficult to assess the influence of disturbances, such as helicopter landings, on wildlife populations. Habitat use and population size are dynamic and influenced by many factors, including weather, predation, disease, hunting, food, and interspecific interactions. These factors are also dynamic, and interact with each other. Knowing how goats use these areas in the absence of helicopters would be very valuable and one of the best ways to assess negative impacts. Impacts can also be assessed by

comparing goat use of areas near landing sites with similar areas away from landing sites. Populations can also be compared between areas with and without helicopter tours (FEIS pages 4-27 and 4-28). When this is coupled with continued use of habitat near landing sites, and little disturbance behavior is observed (FEIS page 4-27), a good case can be made that few impacts are occurring. Language in the FEIS has been clarified. See also Responses J-2 and J-3.

One of the most heavily used landing locations, the lower Mendenhall Glacier, is also adjacent to mountain goat kidding habitat. Information indicates the number of goats in this area has increased since landing tours began in 1984.

J-22. One comment suggested observations of goats were used to conclude bears and wolves would react similarly, showing negligible impacts.

Response: Conclusions about bears and wolves were not based on observations of goats. No statement could be found in the DEIS to support this comment.

J-23. One comment noted the EIS neglected to consider heli-skiing as a cumulative impact to mountain goats.

Response: Comment noted. This has been added to the FEIS, *Cumulative Effects* section, page 4-33.

J-24. One comment requests that "predictability" be added to the list of units of measure for comparison of the effects of the alternatives on wildlife.

Response: Predictability of disturbance can aid in desensitization of animals, increasing the likelihood of habituation, thus decreasing stress (National Park Service, 1994). Frequent, predictable overflights, such as those near airports, are more likely to promote tolerance than occasional ones. Though important, this would be difficult to assess among the alternatives. The units of measure identified in the DEIS (proximity, frequency, and hours of operation) do allow us to identify and assess the environmental impacts of the Proposed Action and alternatives.

J-25. One comment states "The Fox study referenced recommends avoiding kidding habitat in May, June, and July, not just through June 15, as stated in the DEIS."

Response: Fox is not referenced in this context in the DEIS.

K. SAFETY

K-1. Several comments express concerns for safety, suggesting that the EIS should include more analysis of safety concerns. They suggest, for example, that the flights are a danger to hikers and passengers, that increasing the allowed number of landings would increase the number of flights and the flight hazards, and that reducing the number of landings and flights would reduce flight hazards.

Response: Information about flight safety has been added to the FEIS, page 3-29 and page 4-32.

K-2. Several comments suggest that the helicopter tour companies have an excellent safety record and that the pilots apply safe flying practices. Some suggest that specific elements of the alternatives could reduce the current safe record. Specifically, one comment notes that trail end buffers will create a safety hazard, and that the one-mile buffer around goat habitat will be a safety hazard as pilots seek alternative routes.

Response: All flight decisions rest with the pilots. Aircraft and passenger safety is their priority, as stated on DEIS pages 1-21, 1-25, 2-27, 2-28. A discussion of safety has been added to the FEIS (page 3-29 and page 4-32).

K-3. Several comments suggest that, in the interests of safety, the Forest Service not allow the helicopters to land in bad weather or when they cannot fly above 2,000 feet.

Response: This is not the province of the Forest Service, which does not have the expertise to decide when the weather is safe enough to fly. Adequate regulations already exist to prevent commercial flightseeing tours from operating in unsafe weather conditions. Additionally, because of the microclimates in the Juneau area, bad weather in one location does not necessarily indicate that the weather is bad, or unsafe, in other locations. Finally, the helicopter tour companies' current safety record does not suggest that the companies are taking unacceptable risks with respect to weather conditions and the safety of their aircraft and passengers.

K-4. Several comments suggest that the pre-selling of helicopter tours may pressure passengers into flying in unsafe conditions. They suggest that passengers should be allowed to cancel for bad weather.

Response: As noted in responses K-1, K-2, and K-3, there are no indications that the helicopter tour companies are currently putting their passengers at risk by flying in unsafe conditions. The manner in which tour companies handle sales and cancellations with clients is a private business decision.

L. NOISE METRICS AND TECHNOLOGY

L-1. One comment notes that the noise budget discussion (DEIS page 1-32) fails to include opposition viewpoints, and that noise budgets fail to address the frequency and duration of noise. Other comments recommend a more thorough discussion of the noise budget concept, including the incentives for quiet technology. One comment recommends that the noise budget should use reduced noise levels as the baseline.

Response: Noise budgets are one tool available to managers, but they do not solve all problems related to noise. The Forest Service is not incorporating a noise budget to address the noise issue at this time (see FEIS, page 1-35). The Forest Service supports the CBJ and industry strategy of addressing the noise issue through alternative heliports, optimal flight routes, quiet technology, and incentives for reducing noise levels over residential areas.

L-2. One comment suggested that consideration be given to quiet technology.

Response: Comment noted. The EIS has considered that quiet technology, alone, will not adequately address the noise issue, and that many individuals are annoyed by the frequency and duration presence of helicopter overflights more than the decibel level. Also please see Response L-1.

L-3. Some comments noted that noise is subjective, and that the loudness scales on Table 3-6 do not take account of differences in frequency.

Response: Comments noted. The DEIS cites standard noise measures and terminology in discussing the topic of noise, specifically in Chapter 3, the *Acoustical Environment* section on pages 3-14 through 3-25.

L-4. Several comments take issue with the use of the 1999 Acentech study data to describe background noise levels in Juneau, citing flaws in that study's assessment of

ambient background noise, and discrepancies between the Acentech study and the 2000 Noise Assessment.

Response: When measurements are made of ambient background noise, all sources of noise are included and listed. It is generally not feasible to exclude only noise produced by certain activities. The 2000 Noise Assessment (Michael Baker et al., 2001) was commissioned to supplement the 1999 Noise Assessment (Acentech, 1999), not to duplicate it. Any deficiencies in the 1999 Noise Assessment were presumably taken care of in the 2000 Noise Assessment; however, the comment that the 1999 Noise Assessment incorrectly reported background noise from Site 25 at 45 to 57 decibels is not correct. Data from the 2000 Noise Assessment actually support these levels at the edge of Douglas on the Gastineau Channel. This study reports L_{90} levels of 42 dBA at location T01 and 48 dBA at location T09 in Douglas near Site 25 (see Table 4-1 in 2000 Noise Assessment). L_{eq} levels corresponding to the 57 dBA above were at a similar level. These minor differences cannot be classified as “significant discrepancies.”

L-5. A few comments state that the DEIS uses an inappropriate standard (65 dBA) for its assessment of annoyance to residents; one also disputes the value of the L_{dn} scale for assessing noise impacts.

Response: Absolute noise levels (and the scales by which these are measured) are only one of many ways to assess the impacts of noise on a community. As the DEIS states on page 4-2, “it is the duration of noise and the number of events, rather than the absolute noise level, that is most at issue.” The DEIS acknowledges in several places that the L_{dn} level of 65 dBA normally used to define acceptability of aircraft noise does not correlate well with actual annoyance levels due to aircraft noise in the Juneau area. A variety of measures and methodologies were used to assess potential impacts. The most significant of these was the current level of annoyance expressed by Juneau residents in response to helicopter noise.

Use of L_{dn} to describe noise environments is widespread and appropriate in many cases. Although the L_{dn} was used in the 1999 Noise Assessment (Acentech, 1999), it was not the only measure relied upon in the decision-making process. Other measures to describe the noise environment included the L_{90} , $L_{eq(1-hr)}$, and SEL (see Table 3-5). The 2000 Noise Assessment (Michael Baker et al., 2001) also used these metrics in addition to the “time above” certain values. The DEIS contains no statements suggesting that Juneau is an airport or that the surrounding area should be assessed in the same manner as urban areas around other airports.

L-6. One comment urges the Forest Service to thoroughly examine all values for background noise levels in Juneau, to make sure they are not set erroneously high.

Response: Background noise is typically taken as the L_{90} measure, which is the noise level that is exceeded during 90 percent of any measurement period. Today’s integrating noise level meters automatically determine this level. The level is approximately the same as the lowest traces on the charts and includes none of the peaks. A thorough review of the data provides no indication that the background or L_{90} levels were measured and reported incorrectly.

L-7. One comment suggests that certain noises should be excluded from background noise level measurements.

Response: Although aircraft noise can be heard much further away than noise from birds or dogs barking, to suggest that lower level noises from sources near the microphone, such as “gardening activities,” should be excluded from the data is not feasible. Every attempt is made to minimize the influence of such noises when selecting microphone locations. However, because the monitors recorded data continuously, all such sounds are a part of the record. These transient events are excluded statistically through use of the

L₉₀ level to describe the background level. The activities described would contribute to the L_{eq} levels reported but would have no effect on the reported L₉₀ levels.

L-8. One comment argues that the dBA scale is not the best way to measure helicopter noise, and that the use of that scale may underestimate annoyance to people exposed to such noise.

Response: The A-weighted scale (dBA) does not, alone, accurately describe helicopter noise, particularly when blade slap noise is present. There is no question that this noise penetrates typical residential walls more so than higher frequency noise (see the 2000 Noise Assessment, Section 4.10 [Michael Baker et al., 2001]) and it is more annoying. As noted in Response L-5, above, absolute noise levels (and the scales by which these are measured) are only one of many ways in which the EIS assesses the impacts of noise to the community.

L-9. Some comments observe that noise measurements cited in the DEIS are not representative of the range of conditions in the Fritz Cove neighborhood.

Response: Noise study data are not intended to predict impacts to specific neighborhoods; rather, they are meant to provide an overall summary of the acoustic conditions in the CBJ.

L-10. One comment states that “time above” standards should be adjusted to reflect the higher sensitivity of some people to noise.

Response: Annoyance curves (e.g., Figure 4-1 in the DEIS) do provide a graphic illustration of this fact: some people report high levels of annoyance at noise levels as low as 40 dB; on the other hand, even at 90 dB, not all respondents are highly annoyed. Metrics, such as Time Above, are designed to reflect the impact of noise upon the majority of a given population, rather than the most or least sensitive members of that population. See also Response L-3.

L-11. One comment states that Table 3-6 (Sound Levels of Selected Noises in Indoor and Outdoor Environments) inaccurately characterizes the sound level and subjective quality of various noises.

Response: Table 3-6 is used only as a general guide with the understanding that people of different sensitivities may assign different values to the subjective levels of quiet or loudness. See also Response L-3.

L-12. Several comments recommend a recalculation of values for dB changes in Table 4-1, using 153 days as the baseline number of landing days in the 1999 season, rather than 124.

Response: Table 4-1 has been revised in the FEIS to facilitate comparisons between 1999 use levels and those anticipated under each alternative. By making the suggested change, the maximum dB change (under Alternative B) increases from 1.7 dB to 2.6 dB.

L-13. One comment asserts that discussions of the alternatives in Chapter 4 inaccurately characterize the detectability of the differences in noise levels among the alternatives.

Response: As stated in the DEIS and the FEIS, characterizations of the differences in noise levels under the various alternatives are based on the L_{eq} values in Table 4-1. Based on the revised Table 4-1 in the FEIS (see Response L-12), these values range from 0.6 dB to 2.6 dB above the L_{eq} values for the actual number of landings that occurred in 1999. As noted in the footnotes of Table 3-5 of the DEIS, most people can detect changes of 2

to 3 dB, and a 5 dB change is “readily noticeable” (Michael Baker et al., 2001). With regard to the use of overflight numbers as a measure of effects, please see Response G-10.

M. MISCELLANEOUS COMMENTS

M-1. A number of comments focused on helicopter pilots and their responsibilities and behavior. Comments indicate that pilots are responsible for complying with noise reduction measures, that they do not always observe minimum altitude requirements, and that they do not always stick to preferred routes, even in good weather.

Response: Comments noted. Refer to FEIS Appendix D, which describes criteria that may be included in the Prospectus and Bid process. Criterion 3 refers to a means of tracking flight elevations and other flight features, which would be useful in determining when flights deviate from planned routes and recommended or required clearances.

M-2. Some comments indicate that the tour companies may not have disclosed all of the impacts of helicopter tours when soliciting comments on the EIS from their passengers.

Response: Comments noted.

M-3. One comment suggests that the number of flights from the Era facility should be minimized.

Response: Landing allocations to helicopter landing tour companies will be made through the Prospectus and Bid process. There is no guarantee that any company, including Era, will receive more or less landings from this process. See also Response G-I.

M-4. The U.S. Department of the Interior indicates that they have no comments on the DEIS.

Response: Noted.

M-5. One comment notes that the CBJ has shown a preference to mitigate, reduce, or prohibit sounds within the community.

Response: Comment noted.

M-6. One comment states that the presence of helicopter noise is contrary to the FSM objective of providing “non-urbanized outdoor recreation opportunities” because helicopters are urban.

Response: The Alaska National Interest Lands Conservation Act (ANILCA) addresses access by traditional methods, stating that helicopters are a part of the traditional methods of access in many remote places in Alaska.

M-7. One comment encourages the Forest Service to investigate alternative means of access to the Juneau Icefield.

Response: The Forest Service encourages all people to take the opportunity to visit the Juneau Icefield, by whatever means they can. The majority of Juneau Icefield helicopter landing tour participants are from other parts of the United States and other nations. The vast majority of these people cannot access the icefield by any means other than helicopter flightseeing tours. That is why tour operators are requesting the Special Use Permits for helicopter landing tours, which is the subject of analysis in this EIS.

Alternative means of access to the icefield are discussed in the DEIS section *Recreation Areas and Recreation Use* in Chapter 3 (pages 3-2 through 3-5).

M-8. One comment incorporates by reference the writer's previous comments on the 1999 Acentech study.

Response: Comment noted.

M-9. One comment states Coastal Helicopters, Inc. typically sends out helicopters in groups of two or three, rather than singly as stated in the DEIS.

Response: Comment noted. According to personnel at Coastal, their typical tour consists of a single helicopter, although some groups may charter more than one helicopter to accommodate a larger group size. During particularly busy times, as many as six helicopters may take off during a period of 15 minutes, all headed for different destinations on the icefield.

N. EDITORIAL COMMENTS

N-1. One comment notes that the DEIS, page 2-33, indicates that Alternative E has "superior performance," when in fact the distinction between Alternative B and Alternative E is 10.9 flights per hour vs. 10.8 flights per hour. The comment asks what human being is going to be able to distinguish this difference?

Response: The FEIS has been edited to clarify the basis for the distinction in flight frequency between these two alternatives. The noise level and average number of flights would be virtually the same under both alternatives. The difference is more indicative of the tradeoff between spreading flights and landings over more days of the week and more hours of the day, rather than focusing flights and landings in fewer days a week.

N-2. One comment indicates that the *Mitigation Recommendations* section does not mention the Citizen's Initiative to limit helicopter flights, and that it should do so. Although it did not pass, the initiative garnered more than the required 2,165 signatures and received 3,156 votes. The comment also notes that the community effort to draft, circulate, and promote a ballot initiative is substantial and represents widespread community concern regarding this issue, even if the community did not agree with the proposed solution. Another comment suggests adding more information about the "facilitated process" mentioned under *Mitigation Recommendations*.

Response: A discussion of the Citizen's Initiative is appropriate to the discussion of mitigation recommendations, and it has been added to the FEIS, page 1-31. Also noted is that public response to the issues raised in this EIS has been vigorous, with numerous concerns raised by those in favor of reducing landings, as well as those in favor of an increase.

N-3. One comment says that the noise level in Juneau is loud, not moderately loud as stated in the DEIS.

Response: Comment noted.

N-4. One comment suggests changes to the list of affected recreation activities to delete noisy activities that should not be included on the list of affected activities and to add horseback riding. The comment also suggests adding several trails to the list of affected trails.

Response: Horseback riding and the suggested trails have been added to the lists in the FEIS, pages 4-13 and 4-14. Activities, such as snowmobiling, have not been deleted from the list; more of those activities will be available if Alternative D, E, F, or G is selected.

N-5. One comment suggested that more neighborhoods be added to the list of affected neighborhoods, including Douglas, North Douglas, and downtown Juneau.

Response: Douglas, North Douglas, and downtown Juneau have been added to the list of affected residential areas (see FEIS page 1-18).

N-6. Some comments observe that Table 4-1 does not present a real comparison of the noise levels expected under the alternatives as opposed to 1999 actual/permitted levels, because it uses a different season length for 1999 than for the alternatives.

Response: Comments noted. See Response L-12.

N-7. One comment suggests that the Forest Service should point out that guides are generally required for safe access to the icefield.

Response: Comment noted. This information has been added to the FEIS, page 1-21.

N-8. One comment suggests that the Letter of Agreement (LOA) between helicopter operators and the FAA may have been revised more recently than 1999.

Response: The LOA is updated annually or as needed. This has been clarified in the FEIS, page 1-25.

N-9. Several comments cite language from the existing special use permits regarding route changes to avoid wildlife, and suggest adding that language to the FEIS.

Response: The language cited in these comments addresses specific requirements for pilots under certain circumstances. This sort of detail will be worked out during the process of drafting the special use permits, and is best left in the permits rather than this EIS.

N-10. Several comments call for minor edits to the DEIS.

Response: Comments noted. Appropriate changes have been made to the FEIS.

O. OUTSIDE THE SCOPE OF THE EIS

O-1. Several comments are outside the scope of this EIS. They include many comments related to heliports, over which the Forest Service has no jurisdiction. Specific comments include the following:

- Against new heliports or specific locations, such as Montana Creek
- Against new heliports unless studies are done to demonstrate that they will decrease the noise in residential areas
- In favor of new heliports
- In favor of new heliports with restrictions, such as boat access only at the Dupont site
- All fixed-wing tours should originate from the airport pond
- Relocate float plane flightseeing tours from Gastineau Channel to the airport
- Too many tourists in Juneau

- Cruise ships are too big; limit ship size
- Cruise ship season is longer than it used to be
- Establish viewing and mountain goat population objectives

Cited Literature

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- McDowell Group, Inc. 1998. Juneau Tourism Community Opinion Survey, prepared for Tourism Advisory Committee, City and Borough of Juneau. Juneau, AK. November 1998.
- Mesiter, E. A. and R. J. Donatelle. 2000. The Impact of Commercial-Aircraft Noise on Human Health: A Neighborhood Study in Metropolitan Minnesota. *Journal of Environmental Health*. 63(4):9. November 2000.
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- Michael Baker and BridgeNet International. 2001. Alternative Heliport Site Analysis, Final Report. Prepared for the City and Borough of Juneau, Juneau, Alaska. September 24, 2001.
- NPS (USDI National Park Service). 1994. Report on Effects of Aircraft Overflights on the National Parks System. Chapter 5: Effects of Overflights on Wildlife. 5.1-5.27 Report to Congress. September 12, 1994.

APPENDIX F

Comments

PROPERTY

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Appendix F

Appendix F contains copies of the written comments, including letters, e-mail messages, comment forms, and oral testimony provided by the public on the Helicopter Landing Tours on the Juneau Icefield 2002 – 2006 Draft Environmental Impact Statement (DEIS). A complete copy of the transcript from the September 6, 2001, public meeting held in Juneau, Alaska, is also included in this appendix. Copies of the 2,086 formatted, pre-addressed comment cards from people who participated in helicopter landing tours during the comment period are not included here. They are part of the planning record, available for review at the Juneau Ranger District office.

Please refer to Appendix E of this Final EIS for responses to these comments. Appendix Table E-2 provides an index of responses. The index lists each comment number (which is also written in the left margin beside each comment in Appendix F) and the response number corresponding to the Forest Service's response in Appendix E.

"Art Bloom"
 <artbloom@gcl.net>
 09/29/01 05:16 PM

To: <ehall@twenc.com>
 cc:

Subject: helicopter landings on the Juneau Ice Fields



AB
 RECEIVED
 10-1-01

I would like to express my concerns about local helicopter flightseeing noise. I have lived in Juneau since 1972, and presently live near the Mendenhall Glacier. I am active in the outdoors and hike many of the local trails frequently. I have been very annoyed by the helicopter noise over the last several years, especially while out hiking the trails around the Mendenhall Valley. While it is true that flight paths and higher flying have made some impact, the difference is between very loud constant noise and somewhat less loud constant noise. The flightseeing companies have no entitlement to their activities or icefield landing permits. These activities create a lot of noise which impacts the enjoyment other people get in the outdoors, and these other people were for the most part here first and were not asked if they minded having their opportunities diminished. The Forest Service administers public land, and in my mind multiple use does mean everyone gets to do what they want, it means the rights of all users need to be considered. I think the number of flights allowed is already excessive and should be scaled back. Just because the Mendenhall Glacier is close to the heliports shouldn't necessarily mean that helicopter landings should be permitted there. Rather than finding heliport sites to alleviate the noise, I think the flightseeing companies should be permitted only to use glaciers away from the Juneau metropolitan area. Let them go to glaciers up the Taku River and if it costs them more let them charge more. After all, why should we residents' loose our peace and quiet so tourists can pay less to land on a glacier? If they want that opportunity let them pay whatever it costs to do it without affecting other uses which pre-existed the flightseeing activities. As another positive suggestion, there should be at least one if not two days a week, preferably on the weekends when most people are not working and have opportunities to get outdoors, when flightseeing flights are not allowed.

Thank you,

Art Bloom
 4506 Prospect Way

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AB
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AB
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AC

RECEIVED
 10-1-01

Ellen Hall
 Foster Wheeler Environmental Corporation
 12100 NE 195th St, Suite 200
 Bothell, WA 98011

Madam.

9/1/01

These comments address the DEIS concerning Helicopter Landing Tours on the Juneau Icefield, 2002-2006. Please implement Alternative B, the alternative that would authorize the least number of landings per year. Helicopter tourism is incompatible with the needs of wildlife and with the desires of recreationists.

Commercial helicopter flights operate for too many hours each day, far too many days each week; they fly too low and do not abide by minimum altitude guidelines on Forest Service lands. (If you do not believe me, I suggest you hike up to Spaulding Meadows any day of the week - certainly Vietnam immediately comes to mind.)

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AC
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STATE OF ALASKA

ADFG
TONY KNOWLES, GOVERNOR

ISLAND CENTER BUILDING
P.O. BOX 240020
DOUGLAS, AK 98324-0020
PHONE: (907) 465-4290
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DEPARTMENT OF FISH AND GAME
HABITAT AND RESTORATION DIVISION

Ben Kirkpatrick
via email

October 1, 2001

RECEIVED
10-1-01

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Ms. Ellen Hall:

RE: Helicopter Landing Tours on the Juneau Icefield 2001 - DEIS Comments

Thank you for the opportunity to comment on the Helicopter Landing Tours on the Juneau Icefield 2002-2006 draft environmental impact statement. These written comments supplement those made by representatives of the Alaska Department of Fish and Game - Division of Wildlife Conservation at an agency meeting held on September 6, 2001, with input from the Habitat and Restoration Division. Department comments are limited to those associated with the conservation of wildlife that may be influenced by helicopter tours that land on the Juneau Icefield.

The department does not have specific comments recommending for or against any given proposed alternative. Generally, helicopters that land far away from mountain goat kidding habitat on the Juneau Icefield will have minimal impacts to wildlife. We urge the continued application of the helicopter/mountain goat standards and guidelines in areas where landings have been occurring over the past decade. Department concerns would be increased if there were proposals to expand the landings to new areas where mountain goats and other wildlife have not been exposed to helicopter traffic. Other general and specific comments follow.

General Comments

Need for more comprehensive study - The Forest Service should undertake a more careful analysis of the impacts of helicopters on wildlife especially for mountain goats and possibly brown bears. These issues were brought to the attention of the Forest Service six years ago (letter from K. Tius to G. Morrison dated 15 May 1995). Unfortunately, the intervening time has not been used wisely and we do not have any experimental information on wildlife-helicopter tour impacts. Assessing the behavioral and/or population level effects of helicopters on mountain goats is notoriously difficult. Yet, the magnitude of the helicopter industry and the public desire to participate in this popular tour activity indicates that rigorous scientific analysis is warranted. The department suggests a team approach to the design, peer review and execution

ADFG
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ADFG
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Why can't we experience quiet when enjoying the Tongass National Forest? Helicopter tourism is incompatible with other tourism on the Tongass: the sound of helicopters negatively affects the quality of recreation experiences in otherwise quiet settings.

Additionally, please do not allow landings in areas previously closed to commercial tours

All in all, Alternative B is the only alternative I can support. Enough is enough. Thank you

Sincerely,

Adrian Celowicz

Adrian Celowicz
PO Box 210802
Auke Bay, AK 99821

of a helicopter - wildlife (beginning with mountain goat) project. We believe that the importance of this issue warrants a rigorous peer reviewed study aimed at assessing impacts helicopter have on mountain goat behavior, habitat use, productivity, and other population ecology questions. "We are encouraged the wildlife staff of the Juneau Ranger District has begun field work to observe mountain goats in areas of helicopter use. But, we believe that the scale of the current project is insufficient to provide future, broad-scale information of use to resource managers."

Need to establish viewing and mountain goat population objectives - We suggest that some mountain goat and helicopter impact management objectives be established. We are unaware of any at this time. The Forest Service needs to acknowledge that the proposed landings in the DEIS might have some reduction in otherwise natural mountain goat populations. It may also be useful to establish some viewing objectives for the public. For example, is it acceptable to have 5 or 15 mountain goats on a ridge system available for viewing? Without such objectives, the public, the helicopter operators, and resource managers will have no yardstick to determine if and when impacts become unacceptable.

Better use of mountain goat habitat model and other goat data - We urge the Forest Service to conduct a more thorough examination of mountain goat habitat and the appropriate use of wildlife habitat models. The model results as presented may not depict reality because the model is based on very little empirical data. We suggest that staff make use of the extensive literature on the subject of wildlife habitat modeling. If the model is used, its shortcomings need to be explained for the public. Some of the mountain goat kidding habitat areas and "mountain goat habitat with buffer" depicted on figures/maps in the DEIS are inaccurate and need to be corrected. For example, you do not depict goat kidding habitat north of Eagle Glacier, and some of the shaded habitat areas are seldom if ever used by mountain goats, even under natural and pristine conditions during a population high.

Along with a thorough examination of the habitat model, we urge that there be a display and analysis of mountain goat locations. Department staff are unclear about the quality of these data, but we suggest that you make some use of pilot reports or other survey information that have been collected over the years.

An important reference regarding recreation and mountain goats seems to be missing from the document. We believe the following reference has information that may be useful in assessing impacts of this project and suggest that you consult it. - Wilson, S.F., and D.M. Shackleton. 2001. Backcountry recreation and mountain goats: a proposed research and adaptive management plan. Wildlife Bulletin No. B-103. British Columbia Ministry of Environment, Lands and Parks. 27p.

Specific Comments

Cover Letter

- 1) In the DEIS cover letter, there is mention made of a "new" tour (a combination fixed-wing and helicopter landing tour at Antler Glacier Lake) that is in the proposed alternative but that does not meet minimum wildlife buffers. Language in this cover letter then goes on to say

that because of the above concerns this tour could only be included in the proposed alternative if the Forest Plan was amended, and that there were no plans to do such. Based on the agency meeting of 6 September we conclude that no Antler Glacier landings will take place and we have no additional comments on this specific topic. Should this become a possibility, the department would like the opportunity to comment on any Antler Glacier Lake activities at that time.

Proposed Action

- 2) Page 1-10 of the Proposed Action states, "Unlike the actions authorized under the 1995 EIS, this Proposed Action does not allocate landings by zone. Allocations and distribution of the limited number of landings would be made through a prospectus and bid award process..."

ADF&G is concerned that tours will be concentrated into select areas, resulting in disproportional disturbances to wildlife in these areas. ADF&G recommends that flights be distributed by zone and daily landings at any one zone are limited to a maximum number. This will prevent intensive use of any one area and distribute flights more evenly throughout the EIS boundary area.

Mitigating Measures and Conditions for Wildlife

- 3) ADF&G acknowledges that the 1500-foot vertical and horizontal clearance of aircraft will minimize adverse impacts, though not eliminate these impacts. We support the concept of enlarging this minimal clearance distance in new areas to at least 0.5 miles.
- 4) On page 2-24, the 8th paragraph indicates that the most recent mountain goat habitat capability model will be updated by monitoring data. At this time ADF&G believes there is no credible monitoring program or data available that would justify updating the capability model.
- 5) Also page 2-24, the 8th paragraph states flight clearances will be maintained "whenever feasible." We acknowledge that air safety must be the first priority during any flight, but when adverse impacts cannot be avoided, mitigation should be required. Pilots and air carriers should be required to keep a log of all clearance zone infractions and be restricted from this area for the rest of any day an incursion occurs. These incursions should be reported to the USFS as they occur. If combined with a monitoring plan this log would show if these incursions are a problem in general or with a specific air carrier.
- 6) Page 2-24, the first sentence of the last paragraph states "site-specific mitigation measures for landing nearer than 1 mile to mountain goat kidding habitat from May 15 to June 15". The only mitigation mentioned is requiring tours to land as far away as possible. This appears to be a blanket approval to violate the Forest Plan standards and guidelines with virtually no documented justification.
- 7) Page 2-24, the second sentence of the last paragraph states, "where monitoring data have shown that mountain goats have become habituated to helicopter landing tours". We have seen no data that substantiates this statement.

10/1/01

Ellen Foster/FWEC
Helicopter Landing Tours DEIS

8) Page 2-24, the third sentence of the last paragraph mentions "additional site-specific mitigation measures" with no indication of how adverse impacts will be mitigated except for a general concept of staying "as far away as possible" to "provide maximum avoidance of the important goat kidding habitat." This is not what the department considers mitigation. We urge the development of an action plan to compensate for the adverse impacts to mountain goats when the general Forest Plan standards and guidelines are violated.

9) Page 2-27, the last sentence of the first paragraph states "landing activities will be moved from the lower sites to the upper sites as soon as snow and ice conditions allow, in order to avoid adverse impacts to the recreationists and wildlife." There is no data showing this action will "avoid adverse impacts to wildlife."

10) Page 2-27, the first sentence of the second paragraph states that historically used landing sites within the 1-mile mountain goat kidding habitat buffer are currently being monitored. We believe that collecting data at these sites while the helicopter landing tours are taking place is not the proper way to assess negative impacts. For instance, without knowing how goats use these areas without helicopter landing zone activity, it is impossible to assess negative impacts due to these activities.

11) Page 2-27, the second sentence of the second paragraph states "The Forest Service has no indications of mountain goat population declines, adverse impacts, or problems in these areas." ADF&G believes the Forest Service has insufficient data on which to base this statement. Prior to making a long-term decision regarding activities that could have significant adverse impacts to the goat population and that violate the Forest Plan standards and guidelines, a peer reviewed monitoring plan must be established.

Thank you again for the opportunity to comment on this document.

Sincerely,

Ben Kirkpatrick
Regional Habitat Biologist

cc: Kim Titus, ADF&G, Douglas*
Bill Hanson, ADF&G, Douglas*
Staff, ADF&G, Douglas*
Richard Enriquez, FWS, Juneau*
Pete Griffin, USFS, Juneau*

ADFG
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AFMS

Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street,
Suite 200, Bothell, WA 98011
Comments on Helicopter Landings on the Juneau Icefield

Yes, hearing helicopters disrupts our recreation.

Trails up into meadows and onto ridges and glaciers take us into wild and windy places. We love being away from motors and machines. This is the recreation that National Forests promise Americans.

The quality of hiking and camping is impaired by the noise of helicopters. Relaxation (a prime reward of being in the woods) is reduced by the noise. Let us be very clear - we find no virtue in having helicopters buzz by the ridge where we are eating lunch (Thunder Mountain, for instance).

Range of Alternatives:

While helicopters remain affordable, we suppose some access to the Icefield by helicopter is in the public interest. Please ensure that the fees charged commercial operators is large enough to provide for enforcement and rescue, because landing helicopters is an exclusive use of the area, Alternative A is not necessary.

Because we believe helicopter flights and landings affect the glacier and the recreational users, we reject the extravagant expansion of Alternatives E, F, and G.

We can't believe we need more flight paths, so reject the new areas of Alternatives D, E, F, and G.

The idea of presenting Alternative E, knowing that it would harm wolves, goats and swans appalls us.

Yes, there were too many landings permitted for 1999 and too many hours for flights, so we dislike Alternative C.

We believe the average landings per day and average landings per hour should be limited.

We can support Alternative B. You need to enforce minimum altitude guidelines and trail buffer zones. You need to patrol the landing sites.

So, count this as support for Alternative B (or more restrictive choices).

Anne Fuller

Michael Sakarias

7943 N Douglas Hwy

Juneau AK 99801

Aug 31, 2001

RECD SEP 25 2001

AG COMMENT FORM

Helicopter Landing Tours on the Juneau Icefield 2002-2006

Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name ANDERS GAUSTAD
 Address 1746 LONDON DR
 City, State, Zip SEALICA, CA 94451-10
 e-mail address ED.SHC.98@AOL.COM

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
 The Alternatives ☐
 Alternative A ☐
 Alternative B ☐
 Alternative C ☐
 Alternative D ☐
 Alternative E ☐
 Alternative F ☐
 Alternative G ☒
 Significant Issues ☐
 Noise Impacts to Residents ☒
 Noise Impacts to Recreationists ☐
 Impacts to Wildlife ☒
 Impacts in New Areas ☒
 Economic Uses ☒

My Comments

AS OF WHAT THE USES HAS DETERMINED, THE HELICOPTERS
 HAVE VERY MINIMAL EFFECT ON WILDLIFE. I DON'T SEE THIS
 AS A JOB FOR THE FOREST BY SERVICE NOISE SENSITIVE
 RESIDENTS HAVE MANY CHOICES OF WHERE TO LIVE
 A BAN ON HELICOPTER OPERATIONS WILL HAVE AN
 ENORMOUS EFFECT ON THE ECONOMY IN JUNEAU

Over.....

AJH



"Ammon & Janice Hill"
 <bongob@ed.net>
 To: <ehall@fwenc.com>
 cc:
 Subject: Helicopter Landing Tours 2002-2006
 09/12/01 01:50 PM



You received an e-mail from Sam and Deb Capp this morning. I would like to let you know that we agree 100% with their e-mail to you.

I have had alot of sad days because our pictures and personal items we have hanging on our walls rattle continually because of the helicopter flights going over our houses -- we never know if they will stay stable or fall off and break. And to never have any peace while they are in flight gets to be too much all the time. I have had to end conversations on the telephone because I could no longer hear what the person on the other end was saying.

We have lived in this neighborhood since 1985 -- I think we were here first. We live across the street from Deb and Sam at 2205 Cascade Street. Please take our requests into consideration. We are thanking you in advance for your kind consideration.

Ammon and Janice Hill
 2205 Cascade Street
 Juneau, AK 99801
 789-9673 or 789-2450

1044 Bonnie Darr
Juneau, AK 99801
907-463-4942
AR

September 30, 2001

Re: Helicopter Landing Tours ... 2002-2006 DGTJ

To whom it may concern:

RECEIVED

AR 1
I support the Citizens Alliance for Helicopter Landings 02-06
DEAR: This alternative would reduce landings to the 1944 school use level
while allowing for 6 days a week of business, 100 days a season and a maximum
of 93 landings per day. This industry must be limited right before the
noise levels become too great for too many. As a regular user of the
icefield for climbing and skiing I can personally say that I am deeply saddened
that such a "remote" location can be so filled with steady noise. Also, I am
tired of having to close my home windows in the evenings to block out the
chopper noise. When I reply my summer videos of my 2 kids taken at
home I can barely hear my own narrative due to the drone of background
chopper noise.

AR 3
Regarding new helicopters, I strongly disagree with the notion of any new
shelike facilities. I want other structures withdrawn or near the airport instead
of existing Depot, Marine Guard or any other new place. The airport is where
the air traffic belongs - nowhere else!

Sincerely,
Chris R. R.



"art crostich"
<ecrostich@hotmail.co
m>
09/23/01 04:24 PM

To: ehall@wenc.com
cc: jfisc@us.alaska.edu
Subject: HELICOPTER LANDINGS

RECEIVED
ASC

Dear Ellen-

We are strongly opposed to an increase in the number of helicopter landings
on the Juneau Icefield. In fact, we would like to see the current number
reduced. Aircraft noise has become so bad in Juneau that we are considering
moving.

Sincerely,
Art & Sharon Crostich
Juneau

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

ASC
1

AT
RECEIVED
10-17-07

To: Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

From: Andy Thomas
Base Manager - TEMSCO Helicopters, Inc.
1630 Mapleaden Way
Juneau, AK 99801

Comments on DEIS - Helicopter Landing Tours on the Juneau Icefield 2002-2006

TEMSCO Helicopters has conducted tours to the Juneau Icefield for many years and I appreciate you considering my comments.

I would like to recommend the Juneau Ranger District select alternative "G." These are the only two alternatives that allow sensible growth for the helicopter operators in a community that isn't very business friendly to begin with. I believe these two alternatives clearly support the USFS mission in managing the natural resources. "F" and "G" are the only two alternatives that will continue to provide environmental, economic and social benefits for the citizens of the United States of America.

I do not support establishing "no-fly" days. Each summer there are numerous days when we don't fly at all due to weather and many more days when we can't fly for part of that day due to weather. Establishing a certain day of the week as "no-fly" would increase the burden on helicopter companies to try to fly as much as possible on the other days (which still are going to include the weather cancel days) to make up the lost revenue. This would create additional traffic, longer hours, and possibly force helicopter companies to reevaluate self-imposed weather restrictions, which in turn could have a detrimental effect on flight safety.

Shortening the hours of operation per day would have a similar effect. In addition it would force helicopter companies to hire more people and buy more aircraft to make up the loss of business. This extra financial burden and overhead would make it difficult to continue to operate as a business without finding additional sources of revenue, such as flightseeing-only tours that would not be restricted by USFS permits.

The DEIS has some critical shortcomings in the following areas:

- 1. The prospectus and bid process is not clearly outlined. Since I don't have the necessary information I don't feel like I can comment.
- 2. Comparing this DEIS to the 1995 FEIS, I notice the following omission: the section discussing mountain goats, routes and the 1500 foot vertical/horizontal buffer (page 1-21) does not mention inadvertent wildlife encounters. Here is part of the text I suggest be added: "Consistent with aircraft and passenger safety and FAA and tower direction, all helicopter flights will maintain a 1500 foot clearance and or avoidance ... of key mountain goat areas, ..." I also suggest you add the following text: "Flight operations will not conduct imprudent changes in routes due to unexpected wildlife

sightings. The intent is to stick to the designated route and not divert for wildlife viewing." [all quotes from Forest Service Operational Requirements]

All wildlife maps in the current DEIS differ vastly from those in the 1995 FEIS. I hereby question the validity and applicability of the goat habitat model used in this DEIS. Comparing "Map 6, Key Wildlife Areas" (1995 Helicopter Glacier Tours, FEIS) with "Figure 2-9, Wildlife Areas" (2002 Helicopter Landing Tours, DEIS) illustrates this difference. I wonder why the map used in 1995 has been discarded, since there obviously hasn't been any negative impact to mountain goats in the meantime, but the protected mountain goat habitat area has been expanded drastically. What is the reason for further restricting airspace and available landing areas, when the 1995 map that has been used without impact proved to work for all parties involved? As a side note to portray my question of validity and applicability, map 2-9 puts many of the USFS cabins (such as Eagle Glacier, Windfall Lake, etc.), the Mendenhall Glacier Visitors Center, sections of downtown Juneau, etc. inside the computed goat habitat. I doubt the USFS will mitigate these intrusions into the goat habitat. What makes the helicopters different from cars and trucks in downtown Juneau? I suggest figure 2-9 be discarded and a more realistic and applicable map developed. TLMP page 5-4 describes how the "Forest Plan embraces ... adaptive management concepts." The available data and studies on mountain goats in the Juneau Icefield area indicate that there is no discernable negative impact by helicopters. One would therefore expect the 1 mile buffer to be relaxed instead of increased.

I question the legal validity of the imposed 1 mile buffer between helicopter tour landing sites and identified "important mountain goat kidding areas." I think the statement in the DEIS is not a reasonable interpretation of the 1 mile buffer as defined in the Tongass Land and Resource Management Plan - Standard and Guidelines (4-117). TLMP language does not support the description used in the DEIS. Reviewing all available USFS publications indicates that this recently formulated interpretation in the DEIS was not intended or contemplated by the USFS or other participants during the TLMP revision process. Further, the DEIS at 2-24 says "A 1-mile buffer will be established between helicopter landing sites and important mountain goat kidding areas identified on Figure 2-9 during the kidding season May 15 through June 15 each year, as required by the Forest Plan." (emphasis added). This requirement can not be found in the Forest Plan. The Forest Plan contains the following guideline: "...should maintain a 1,500 foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. Where feasible, flight paths should avoid known mountain goat kidding areas from May 15 through June 15. Pilots will not compromise safety." The language of the Forest Plan mountain goat standards and guidelines does not support a conclusion that the 1 mile buffer applies to flight routes or helicopter tour landing sites.

The requirement that we used to avoid all the new kidding areas by 1 mile puts undue strain on helicopter companies, especially after the last 19 years of experience have demonstrated that there is no lasting impact on mountain goats. Who will measure and enforce the 1 mile buffer? The additional areas of restriction in the DEIS will have a detrimental effect on aircraft and passenger safety, especially in the beginning of the season when most of the traditional landing areas are still inaccessible due to snow cover and during "weather days." This is because many of the historically used landing areas are now off limits due to the expanded 1 mile buffer. This will force helicopter companies to try to find new landing areas somewhere outside the 1 mile buffer that have been previously discarded due to safety concerns.

The proposed new buffers around trail ends (figure 2-3) will have a negative effect on aircraft and passenger safety. They force helicopter companies to redraw the flight routes into big "S" turns, which will cause confusion in the air and make it harder to spot other aircraft that might be on collision course. In addition to that, they also force helicopter companies to fly closer to terrain (in the case of the buffer around the Eagle Glacier Trail and the Herbert Glacier Trail), which, again, makes it harder to spot other aircraft. The buffer around the West Glacier Trail will squeeze all flights into a narrow corridor that at the same time has a major landing area underneath it. These proposed buffers will force all helicopter operators to fly through artificially created corridors that are even narrower than the unique terrain, which already has a channeling effect. We would have opposing helicopter (and float plane) traffic flying very close to each other at high speed, both straight and level and climbing/descending. I personally think this is a recipe for disaster. Not good for safety!

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(cont.)

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AT 9
I think it should also be noted that Juneau's helicopter companies have spent considerable resources and time in addressing community concerns. We have participated in the public process since the very beginning and have made various successful adjustments to mitigate people's issues. The dearth of complaints this year shows that we are moving in the right direction and we will continue to work with the community.

AT 10
Last but not least, the 1999 flightseeing initiative was voted down by nearly 70% of Juneau residents. It is interesting to note that many of the mitigation measures proposed in this DEIS echo the restrictions in the unsuccessful initiative. It appears like the public feels such extreme restrictions are not necessary.

Thank you for considering my comments.

Audy Thomas
Base Manager - TEMSCO Helicopters, Inc.
1650 Maplesden Way
Juneau, AK 99801
(907) 789-9501



Era Helicopters
P.O. Box 21468
Juneau, Alaska
99802

AW



9/29/01

Ellen Hall
Forster Wheeler Environmental
Corporation
12100 NE 195th Street
Suite 200
Bellevue, WA 98011

To Whom It May Concern,

My name is Amy Windred. I have lived in Juneau for 16 years and in Alaska 30 years. I am the Juneau Base Manager for Era Aviation. This letter expresses my opinion as a long time Alaska resident on the DEIS for Landings on the Juneau Icefield.

The DEIS for Helicopter Landings on the Juneau Icefield covers many issues related to flightseeing in Juneau. Subjects ranging from effects on Goat populations to noise concerns by residents. As I view it there are a few questions, which used to be answered before the Forest Service can make a decision. Once these questions are addressed then a choice must be made as to which Alternative or combination of Alternatives meets the standards set.

One question to be answered is what does the USFS see as their ultimate goal. Is it to promote the use and enjoyment of the Tongass National Forest by all interested visitors or is it to limit access. This is a complicated subject because it brings into question whether individuals should only be able to reach the area by hiking or are motorized forms transportation. This dovetails to many other areas; accessibility for handicapped individuals; do hikers cause more physical impact than a helicopter; who should be able to enjoy these sites? As an individual I would hope that the goal would be to promote access to all folks who contribute to the Tongass' existence, particularly if there is little or no impact to the activity. Allowing everyone the opportunity to enjoy the awesome resource of the Juneau Icefield will only insure its existence in the future.

The other large question is whether impacts to areas unregulated by the USFS are to be considered when making a decision on the DEIS. This also is a very complicated topic. If they choose to consider these other areas, to what extent should they be measured? Should they reduce landings for all because of noise impacts to a few individuals in the City and Borough of Juneau? What kind of precedent does this set up? On the other hand if there is a responsibility to neighboring areas to what degree? Do you reduce Landings and effect who can and can't visit?

These are a few examples of what should be considered when selecting an Alternative for the DEIS.

Since the Forest Service is limiting the range of prospects from Zero landings to a 10% growth over the 1999 for the next 5 years I would support Alternative F or G. I would hope that there would be no restriction to the Icefield, allowing everyone the opportunity to enjoy this resource. With this in mind Alternative F and G would probably be adequate in meeting current needs for helicopter access. Restricting hours and day of operation, more than they currently are, ultimately results in limiting access to a very few. It also makes it difficult for Operators to remain in business, again resulting in limited access to the few who can afford it.

AW 1

AW 2

AW 3

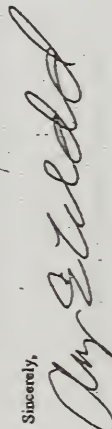
907-586-2030
fax 907-463-3959

As far as effects to wildlife, current standards seem to be working. There seems to be no evidence that recent practices are harming existing habitat. To change them to either more or less restrictive than the current 1500 ft. makes little sense. In new areas the same standards should apply. Existing areas have not been damaged, where is the evidence that new areas would be? If it could be shown it was harmful then adjust distances but don't assume the worst.

The issue of whether Helicopters should be able to land on the glacier and to what extent is the question the USFS is to answer. I believe if there is little or no impact to the Icefield and its inhabitants there should be no restrictions. Issues of noise in CBJ should be handled by the CBJ. If the Forest Service determines it must consider the noise impact then take a look at the scientific data. The study done by the USFS and the one funded by the city shows that the noise created is enough to only give pause. Is this enough to restrict the enjoyment of public lands? I would hope this is not the case.

The decision as to which Alternative is best is an extremely complicated one. It is one that affects not only individuals who live in Juneau but every person who chooses to visit here. The Forest Service must consider this when making that difficult choice.

Sincerely,



Amy Windred
Juneau Base Manager
Eco Aviation

FROM: Bruce H. Baker, P.O. Box 211384, Auke Bay, AK 99821

REC'D SEP 25 2001

BB

TO: Mr. Pete Griffin, U.S. Forest Service District Ranger for Juneau, Alaska and Ms. Ellen Hall, Foster-Wheeler Environmental Corporation

These comments are submitted on the July 2001 U.S. Forest Service Draft Environmental Impact Statement (DEIS) for Helicopter Landings on the Juneau Icefield - 2001. I am writing as a long-time resident of Juneau, Alaska who hikes or back-country skis extensively on national forest and other trails, alpine routes, and glacial routes in the proposed project area, who canoes and kayaks on waters in the project area, and whose quality of experience has been consistently degraded by the long leash that the U.S. Forest Service has allowed helicopter flightseeing companies to be on throughout the 1990s and during 2000 and 2001.

DECISION ALTERNATIVE

Based upon my adverse experience with largely unbridled helicopter flightseeing landings on national forest lands here, I strongly urge you to adopt as the preferred alternative in the final EIS (FEIS) the following:

1. Description: By 2004, reduce icefield landings to a pre-1994 level.
2. Number of landings per year (by 2004): No more than 8,000 per year.
3. Length of permit season: No more than 128 days.
4. Hours landings can occur: No sooner than 8:30 am and no later than 6:00 pm.
5. Days per week landings can occur: No more than 5.
6. Average number of landings per day (by 2004): No more than 62 for all permittees combined.
7. Maximum number of landings per day (by 2004): No more than 62 for all permittees combined (no opportunity to exceed this maximum on sunny days in order to make up for low-visibility days).
8. Total number of landing locations: No new locations and allow no more than the following numbers of landings at any of the following locations that are currently permitted: Echo Glacier-5, Gilkey Glacier-5, Thiel Glacier-5, Battle Glacier-5, Eagle Glacier-5, Herbert Glacier-5, Mendenhall Glacier-5, Lemon Glacier-5, Death Valley-5, Norris Glacier-5 on each of North Branch, Middle Branch, and Dead Branch; Hades Highway-5; and Taku Glacier-5.
9. Flight Paths: No new flight paths and disallow flights over or within one mile of Pt. Stephens and Tee Harbor; Auke Mountain/Spaulding Meadows, Mt. McGinnis, Mendenhall Lake, Thunder Mountain, Heintzelman Ridge, Blackberry Ridge, Mt. Juneau, Gastineau Peak, and Mt. Roberts. If flight paths are not flyable at required minimum altitudes because of poor weather, flights are cancelled for that period of time until routes are safely flyable at minimum specified altitudes.

10. Minimum Distances above ALL Wildlife Habitat: At least 1,500 feet beginning as soon as aircraft leave the airspace above the airport or saltwater. Page 2-27 of the DEIS suggest that air traffic prevents permittees from reaching a 1,500-foot altitude before leaving the airspace above the airport. One solution would be for them to gain that altitude over saltwater beyond the Mendenhall Peninsula and north Douglas Island. That would admittedly deflect the noise disturbance over boaters and nearby residences. That is why the better solution is to simply disallow landing permits in areas to and from which a pilot cannot maintain a 1,500-foot altitude whenever an aircraft is outside the airspace over either the airport or saltwater.

11. Distance above ALL Trails and Alpine Ridges: At least 1,500 feet, beginning as soon as aircraft leave the airspace above either the airport or saltwater.

12. Trail End Buffers: Yes.

13. Motorized Snow Vehicle Tours: Disallow all such tours.

14. Expanded Area North to Haines: Disallow expansion.

15. Eagle Glacier and Death Valley Landings: Disallow landings per item 8 above.

16. Antler Lake Landings: Disallow landings.

17. Consistent With Forest Plan: Yes.

MITIGATION OF ADVERSE SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS

Although flight and impact monitoring are essential, monitoring must not be counted as mitigation because in itself, monitoring does not prevent, minimize, or compensate for adverse impacts.

FLIGHT AND IMPACT MONITORING

The EIS needs to indicate that permits for helicopter landings will include enforceable provisions for monitoring and reporting daily landings, flight paths, minimum altitudes flown, and observed adverse impacts. The EIS needs to say that permit language will include monetary penalties for a permittee's failure to comply with monitoring and reporting stipulations in the permit. Finally, the EIS needs to say that permit language will include a provision that allows the Forest Service to audit a permittee's flight logs to verify the company's monitoring reports.

HUMAN SAFETY

The EIS needs to say that the Forest Service will approve only those landing sites to and from which a pilot can maintain a 1,500-foot altitude one he/she leaves the airspace above the airport or saltwater. In addition to providing at least limited protection of wildlife habitat and the quality of experience for residents, hikers, and boaters, a minimum flight altitude of 1,500 feet once

aircraft leave the air space above the airport or saltwater would provide a greater measure of human safety than currently exists. For example, helicopters currently fly so near to the ground when going over the subalpine wet muskeg meadow on their way up the shoulder of Heintzelman Ridge that a hiker who becomes sufficiently irritated by the noise of several very low-flying helicopters and who has terrorist tendencies could fire a rifle at any of the helicopters overhead with a very good chance of striking it. Although we do not like to even think of someone performing such a horrific act, the terrible terrorist events in New York and Washington, D.C. on September 11 give cause to take every reasonable precaution against such things occurring.

Moments after these same helicopters pass over the above-mentioned muskeg, they fly low over the alpine ridge which separates Heintzelman Ridge from Thunder Mountain ridge. Not only is the sudden rush of noise from several helicopters surprising and unsettling to those on the ground, it could also be dangerous for anyone traversing the route up or down through the gendarme-like rocks that must be negotiated to gain or descend from the skyline of Heintzelman Ridge. Though not a technical rock climbing pitch, this spot can be a tricky enough scramble, especially when the ground is wet and slick, that a fixed rope has been installed there in past years. The last thing someone needs is to be startled by sudden helicopter noise when they are carefully negotiating this pitch.

And finally is the matter of a possible aircraft malfunction. While I defer to pilots as to where they think they could or could not successfully execute an autorotation in an emergency situation, it's hard to imagine how they would have enough vertical airspace beneath their craft to do so when flying as low as they have been over the above-mentioned alpine pass leading to their flight path along the west side of Heintzelman Ridge.

INADEQUACIES OF THE DEIS

The following are inadequacies of the DEIS, and if carried into the FEIS, some of these may be the focus of successful legal challenge.

1. **COMPLIANCE WITH CODE OF FEDERAL REGULATIONS.** The Code of Federal Regulations requires that environmental impact statements shall serve as a means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made. The DEIS does not feature an adequate assessment of the environmental and associated social impact of the proposed Forest Service actions and should not, therefore, be used as a basis for making decisions, other than to issue a supplemental EIS which complies with the full requirements of the National Environmental Policy Act (NEPA) and other associated directives.

2. **YEAR 2000 LANDING DATA.** There is no detailed information describing the average and maximum number of daily landings for landing location permitted in 2000. The result is that it is that there is no meaningful baseline against which the preparer or reviewer of this or future EISs can compare the proposed alternatives with the present situation. One of the reasons this baseline is essential is to understand the maximum number of landings and flights which take place on clear or mostly cloudless days, the very same days when hikers and boaters are most likely to be in the mountains or on waters such as Mendenhall Lake.

3. DETAILED ENCLAVE DESCRIPTIONS. There is no detailed map of "enclaves" and no detailed description of what future enclaves are to consist of, the intensity of human activity that one can expect to take place there, and the specific environmental impacts that are expected to result from enclave activities.

4. EFFECTS ON NON-PASSENGERS AND THEIR SOUNDSCAPES. Only one and one-half pages of the more than half-inch thick DEIS describe "How Noise Effects on Recreationists are Estimated." This is woefully inadequate, especially given the admonitions of Juneau citizens over the past two years for the Forest Service to conduct meaningful surveys of noise levels and peoples' impressions of how this noise affects the quality of their experiences. There is no defensible data in the DEIS on how many people are out on the various trails or are in the high-use alpine areas and what the impacts of helicopter noise disturbance would be in terms of how much of a distraction or threat to the quality of their outdoor experience they perceive there to be. Table 3-1 on page 3-3 of the DEIS concedes that "The Forest Service has no quantifiable data on trail use. . . . Estimates are based on anecdotal information."

Citizens have been asking the Forest Service to obtain such information, and the agency has failed to do so. For example, there are numerous excellent comments on this disturbance issue that came out of the scoping exercise, yet the DEIS suggests that the Forest Service has only given lip service to this issue and has failed to adequately address the subject in a) the user information that it has portrayed in the DEIS, and b) the degree to which the agency has designed and described its decision alternatives to significantly prevent such disturbance. It is clear from the DEIS that the Forest Service has demonstrated a bias in favor of permitting helicopter landings, at the considerable expense of on-the-ground residents and backcountry users.

Before selecting any action decision alternative, the Forest Service needs to conduct a scientifically defensible user survey which is conducted in the field over a period of at least one summer month. Survey data should be collected on trails and should be designed to collect trail user information on how far along the trail or into alpine meadows they traveled by foot and what their impressions were regarding the degree to which helicopter noise affected the quality of their backcountry experience. The survey needs to be conducted during July or August when snowmelt has become sufficient for there to be the maximum number of backcountry hikers at the upper trail elevations and on alpine summits and ridges.

This above-mentioned user survey needs to be paired up with a technical soundscape survey which determines over at least a one-month period in July or August, noise levels emitted by helicopters, the daily frequency of flights overhead or within one mile of the survey point, the duration of these flights, and the length of the day during which these flights are made. This survey should be conducted on principal trails, in heavily used alpine meadows, on lakes and saltwater, and in neighborhoods extending from Tee Harbor to Thane.

5. SNOW VEHICLE EXPEDITIONS. Although there is mention on page 1-1 of mechanized snow vehicle expeditions on the icefield, the DEIS contains no detailed information as to who is proposing this activity, what it is to consist of, or what the environmental impacts of it would be.

6. RECREATIONAL OPPORTUNITY SPECTRUM DESIGNATIONS FOR LAND USE DESIGNATIONS. The DEIS fails to provide information on what the Recreational Opportunity Spectrum (ROS) designations are or where their boundaries are, relative to Land Use Designations (LUDS) in the Tongass Forest Land Management Plan or the project area in general. It is impossible to adequately assess alternatives without this information.

7. IMPACTS TO OTHER BUSINESSES. The DEIS does not provide definitive information on the adverse economic impacts of the action alternatives on those businesses which benefit from the public's opportunity to enjoy quiet and solitude in their outdoor activities.

IN CLOSING

I appreciate the opportunity to review the DEIS and encourage the Forest Service to fix the inadequacies of the EIS during the 2002 flightseeing season and to issue a legally defensible supplemental DEIS following analysis of the results from the above mentioned surveys to be conducted in July or August 2002.

Bruce H. Baker

Bruce H. Baker

September 19, 2001

Becky Carls

<carlsb@alaska.net

To: thorp@is.fed.us

cc:

Subject: number of days

08/18/01 08:21 PM

Hi, Laurie,

As you may have noticed, I asked Pete for an extension for submission of comments.

In reviewing the stats some more tonight I discovered that the number of days for landings for Alternative B seems to be too high...I count only 105 or 106 days (depending on how the weekends hit the dates of the months). Could you please check the numbers, or let me know what I am missing?

I crunched the numbers for Table 4-1 tonight, using the number of days for 1999 as 153. The helos started flying as soon as the ships were in town this year, and I doubt it was different in 1999. Due to variability in the ships' schedules and a very much uncertain future, it seems best to use 153 since weekends and holidays were not restricted that year.

Please call me at 790-6802 (a.m.) or 789-0947 (p.m.) to let me know the number of days to use for Alternative B as it now stands with 2 weekend days off and holidays off as well.

Thanks for your help!

Becky

Bc1
1Bc1
2

Bc1



Bc2

Becky Carls
Fritz Cove Road
Juneau, AK 99801
Sept. 30, 2001



Dear Mr. Griffin,

Thank you for the opportunity to respond to the DEIS of the Helicopter Landing Tours of the Juneau Icefield, 2002 - 2006. The DEIS was well written and addressed many issues in depth. This letter explains why I support Alternative B, with some modifications, why I don't support the other alternatives, and specific feedback on various elements throughout the DEIS. But first I will begin with a bit of my family's story.

We moved to Juneau in 1979 and were fortunate to find a nice little house in the Mendenhall Valley in which to begin to raise our family. By the time the kids were reaching their teen years, we were outgrowing our first home and looking for a new one. We looked around CBJ at existing houses, but could not find one that was suitable. So we decided to build our own home. In looking for land, my husband literally ran across the lot we eventually bought. He works in the Auke Bay area and often ran along Fritz Cove Road (FCR) for exercise. He is quite familiar with the road and its various noise environments. When he suggested we look at a lot on FCR I thought he was nuts. I assumed the airplane noise would be too much. But he insisted this lot was no worse than where we lived up in the valley and wanted me to check it out.

So to humor him I accompanied him to the lot. We spent many hours there before we decided whether to buy it. The little birds and eagles were a thrill to watch; they were so tame since they'd had little human interaction in that area. (We live on the uphill side, which is largely undeveloped at our end of the road.) There were lots of blueberries and red huckleberries, so many that we wouldn't need to pick in the National Forest anymore, but just go out our back door. Being naturalists, there would be plenty to observe and explore and teach to our kids. And it was amazingly quiet! The noise from the jets was no worse than up in the valley where we were living then, single engine aircraft infrequently flew nearby, and I rarely spotted a helicopter. It seemed like an idyllic location to build our home and raise our family.

In 1992 we bought the lot. That summer and fall we put in dozens of hours surveying the lot in all kinds of weather so we could determine the best places to construct the driveway and build our home. In 1993 the driveway went in and in 1994 we built our house. Sometime after we bought the lot, the helicopter flightpath was changed. This is not a figment of my imagination. You may ask any of my neighbors who have lived in this neighborhood long enough to remember quieter days. You may also ask Mr. Dave Miller, the former Airport Manager for Juneau International Airport. According to Mr. Miller, these routes were changed sometime after the 1995 season, with helicopter traffic being split from fixed-wing traffic. Previously, most aircraft flew through "the cut" on Mendenhall Peninsula (MP). Only occasionally were helicopters sent over MP to the north of the cut, usually when there was too much traffic in the cut. This new helicopter flight path over MP decreased the horizontal distance by 1/2 between my house and where the helos used to fly, and where they do now. This new path is now fixed by the FAA and it is my understanding that this new flightpath is a direct result of the increased flightseeing helicopter traffic brought on by the increase in permitted landings by the Forest Service in the last EIS.

I am telling this story so you understand we did carefully check out our environment before moving here. We did not foolishly move first and then decide "Gee, it's noisy here," because initially it was not. After we moved in, our nice, quiet home in the woods had its naturally peaceful environment destroyed by the intrusion of helicopter noise which we face nearly every day of the five "warm" "summer" months of the year. We committed years ago to raise our family in Juneau. My husband has worked for the same organization since shortly after we moved here. We did a lot of the construction work on our home ourselves: from felling some trees, to hammering nails, painting, roofing, landscaping and gardening. Of course, it is still a work in progress. Even if we wanted to relocate, we cannot move this house. It is built on the bedrock of MP. We

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cannot duplicate this home somewhere else in Juneau which would be away from the helicopter noise. I have not found private property on which to build which is not within earshot of the flightseeing helicopters. And we are getting older, we no longer have the energy needed to build a home from scratch. We have put down our tools here, and so have my plants. Having to move my family from my home just because someone "needs" to walk on a glacier seems like an awfully high price for my family, and other families in Juneau, to have to pay! I do not want to move. I believe a compromise can be found which will allow some helicopter flightseeing to continue while making the residential environments in Juneau much quieter in the "summer." Which brings me to the DEIS itself.

(NB: Direct DEIS quotes are in a smaller font.)

Purpose and Need Statement: "The purpose and need for the Proposed Action are to meet public demand for quality, outfitter-guided services that provide safe helicopter access to remote locations on the Juneau Icefield." An acronym of need is "incidental," meaning nonessential, luxury, ancillary. While it might be nice for folks to visit and walk around on a glacier it is not a "need." I was taught that the only true "needs" are food, clothing and shelter. The homes along FCR provide shelter to Juneau residents, just as the homes throughout CBJ do. Most of these homes both along FCR and throughout CBJ predate the flightseeing helicopter tours. The "need" for glacier landings was artificially created over the last 10 or so years; a true need is generally not of such transitory nature. More consideration than has been in the past, should be given to residents' needs for quiet in their home environments in setting the number of flightseeing tours. The "public demand" is artificially generated. Tourists visited the Mendenhall Glacier and enjoyed the Juneau Icefield for many decades before some thought up the idea of flightseeing tours landing on the glaciers. The demand is generated by very effective advertising both on the cruise ships and in general tourism advertising.

Yes, we residents of CBJ should share the great natural beauty we are so blessed to live in the midst of, but there are many much quieter ways to do that. Flightseeing can continue, but it must be made much quieter, and the easiest way to do that is by having far fewer landings. The public, to whom this whole area belongs, does have the right to visit and enjoy the Juneau icefield, but they do not need to walk on it, they want to. Everyone who visits Juneau does so because they want to; their lives do not depend upon it. They spent much time and money to get here because it was something they wanted to do. "Management prescriptions for the three LUDs incorporate the recreation and tourism forest-wide standards and guidelines for management of major and minor recreation special uses. These management prescriptions direct Forest Service managers to do the following: ... authorize commercial recreational developments and services where there is a public need." Again, the "public need" of the tourists is artificially created and should not take precedence over the requirement of local residents for quiet.

Table 1-1 would be improved if the data for 1994 were included. Since Alternative B refers to the number of flightseeing landings for that year, it would be more complete to include this data if it is available.

I suggest that the Forest Service spend some of the money it realizes from the flightseeing landings to verify the data in Table 1-1 and compliance by the flightseeing companies with other agreements they reach with the Forest Service. If in 1999 and 2000 only 85% of the allocation was used, there would seem to be little "need" to increase the number of flightseeing landings allowed. This is in spite of increased numbers of cruise ship tourists. In fact the industry has seen very little growth since 1998 according to the figures in Table 1-1 and Table A-1 (Figure A-1 should have data from 2000 added to it from the numbers on Table A-1). If people were adapting to the level of noise, then you wouldn't have so many residents who are still highly irritated by the noise despite a fairly level number of flightseeing flights since 1997. In 1996 the number of flights took a dramatic increase of 20.6% over the previous years, and in 1997 jumped 12.19% over the previous year, and has fluctuated up and down from 1997 to 2000 for an overall gain of only 3% in number of landings over those 4 years, but the level of noise complaints remains high. Folks are not adapting to the noise.

Page 1-10 states, "The proposed helicopter landing tours would consist of 30- to 90-minute flightseeing tours in a helicopter." Page 1-15 states, "Proposed icefield activities include the following: icefield landing tours with one or multiple landings, varying in duration from 1 to 6 hours and multi-day excursions." And page 1-17 states, "The duration of these landing tours would range from about 90 minutes to several days." These need to be looked at for clarification.

"Significant issues are unresolved conflicts or disputes regarding the effects of the Proposed Action that, because of their extent, duration, or intensity, are used to formulate alternatives to the Proposed Action, prescribe mitigation measures, and/or serve as the focus for a comparison of environmental effects between alternatives." In the 1995 EIS, noise impacts were identified to be a significant issue. From the Record of Decision, Page 3: "It is recognized that any increase in helicopter traffic will likely increase the percent of the population highly annoyed by helicopter noise." This has obviously happened, and to a greater extent than the 'low level' which was expected. The mitigation measures did not work. More folks are annoyed A LOT, and not just those who "recede or retreat in areas close to the helicopter flight paths." The noise pervades the whole community and cannot be escaped. It is just EXTREMELY annoying to many folks who live or recreate near it. The noise effect goes beyond annoying...it is a nuisance in a legal sense: "harm, injury or disturbance (my italics) as to use of property, health, safety, or decency." (Random House Webster's College Dictionary, 1997). Past mitigation measures have not worked. The noise levels have increased since the 1995 EIS was issued and any mitigation measures were ineffective in relieving this problem, most likely because the numbers of landings increased by 41% (or is it 43%...see below)! The number of actual flights probably increased even more because the newer "excursion" type of trip results in more "support" flights and often multiple landings...one to drop the folks off and another to pick them up. The only truly effective mitigation measure available at this time (since the helicopter issue is unresolved and will probably remain so for years) is to decrease the number of permitted flights back to the 1994 level (of 11,881). (The 1995 EIS repeatedly uses the number 11,647 for the actual number of landings for 1994) Just a 2% lower number, but which is correct?

Please change the "could" to "does" in paragraph two: "The noise of helicopters during flights could affect the quality of life for residents..." This effect has been established in your current DEIS. This paragraph goes on to list neighborhoods affected by the noise, but leaves out downtown Juneau, Douglas, and all of North Douglas. All of these neighborhoods taken together make up nearly 100% of the residential areas in CBJ! After the statement "Current complaints from residents have common themes regarding the specific aspects of the noise generated from the commercial helicopter flights" you could state "including:" and then make your list. The second theme in your list: "The number of helicopters traveling together causes people to feel overwhelmed by the event" is not quite right. It is the number of helicopters all the time, throughout each hour, not just the flocks of 5 to 6 helos. The list is too short. Some big additions among many, many others, are 1) There are simply too many flights, every hour, of every day of every week of the whole long season (barring inclement weather or lack of cruiseships). 2) Property values in some of the noisiest neighborhoods have fallen. 3) Having the helos fly near our homes is an invasion of our right to privacy in our own homes and yards. 4) The noise interferes with the enjoyment of our property, both inside and outside our homes. 5) There is concern about the effects on children's learning and development of speech when they are continually exposed to these loud levels of noise. 6) The levels of noise from flightseeing helicopters are too high when outside so that a person must yell to be heard; when inside one must speak much more loudly, this with the doors and windows all shut! When looking at the units of measure to compare alternatives, please figure out how many residential units are within one mile of the flight paths. A distance of 1/2 mile from either side of a flight path is insufficient (I am about that distance and it is way too noisy here...regularly 60-65 dBA for each helicopter overflight), but about 1 mile seems right based on my walking poll last summer of my neighborhood. I mention this since in the next section you state the intention to compare the closeness of flight paths to trails and cabins.

Please change the "could" to "do" in the following statement: "Flights could cause noise disturbances to ground-based

recreation users..." This effect has been established in your current DEIS. The paragraph goes on to state:
 "Responses to reporting indicate that some people believe that, while they are involved in a recreational activity in a typically quiet setting, hearing helicopters is a negative impact to their recreation experience." I agree with this statement, but please note this is also an expectation of residents: the helicopter noise has a negative impact on my life experience in the typically quiet setting of my home and neighborhood.

Management Direction:

Recreation and Tourism Forest-wide Standards and Guidelines: "Conduct activities in a way that minimizes adverse impacts to popular or highly valued local areas with outlier/guide operations." (Local residential areas could use this same sort of consideration.) Table 1-2 works with Figure 1-4. Many of these "sites" are clustered together, particularly in the Mendenhall Glacier area, so closely that they might interfere with the visitor's experience of "solitude" on the glaciers. Is this to accommodate the 100 landings per site per day? Just how big is a site? How far apart do sites need to be? This number would allow an average of only 8.7 landings per hour. Far more helos head up toward the Mendenhall Glacier on a busy day than 9 per hour. It would seem that to have so many sites in use would be an adverse impact in this highly popular and valued local area.

Threatened, Endangered, and Sensitive Species and Other Wildlife Forest-wide Standards and Guidelines

"Conserve and manage Alaska Region Forest Service sensitive species, including trumpeter swans. Avoid disturbance of trumpeter swans, particularly during nesting and brood rearing." Swans visit "Moose Lake" in the Dredge Lakes area. Helicopters are heard here regularly and sometimes fly near the area when the weather is foul. "Provide for the protection and maintenance of harbor seal and Steller sea lion habitats." "Conduct activities to avoid or minimize disturbance to habitats within the forest..." It is very important to protect our wildlife. They seem to have a hard time speaking up for themselves. But, as a *Homo sapiens* I would like to have my habitat protected, maintained, and left undisturbed by the flightseeing helicopters, too.

Manuals and Handbooks

Forest Service Manual 2700 (FSM 2700)

"The special uses objective for recreation as stated in Chapter 2720 is: "To issue and administer special use permits for recreation uses that serve the public, promote public health and safety, and protect the environment." Public health and safety are not promoted when these flights pass over residential areas. Helicopters crash, and have emergency landings, as we have seen repeatedly. There was an emergency landing this summer near the Mendenhall Glacier Visitors Center. Whenever a helicopter deviates from its "normal" flight path over my neighborhood it is scary! I don't know if they are in trouble or just diverting for some other reason. It is particularly frightening when the helos come in low and right over my house, which occurs several times every summer. If there are days when helos cannot safely fly above 2000 feet elevation, they simply should not fly on those days. It would be safer for the flying public and the folks they fly over on the ground. And it would be quieter in the neighborhoods they are flying over at much lower elevations on poor weather days.

Forest Service Handbook 2709 (FSH 2709)

"...to conduct outfitting and guiding activities in a manner that protects environmental resources and ensures that National Forest visitors receive high quality services." The natural quiet of the Juneau Icefield, surrounding USFS land, and private land is an environmental resource which is not being protected from helicopter flightseeing tours generated noise. This quiet resource is being taken from homeowners and recreational users of these areas, particularly those on trails or in cabins. The continual noise prevents visitors to the USFS from receiving "high quality services" when they have come to our area to experience the wild and quiet wonders we have to offer. Many visitors come from big cities and some comment that their cities are quieter than our remote little town simply because of the flightseeing noise! Our naturally quiet environment needs protection from the invasion of man-made transportation noise.

Forest Service Manual 2300 (FSM 2300)

"FSM 2300 identifies objectives for public recreation management, including the following: To provide non-urbanized outdoor recreation opportunities in natural-appearing forest and rangeland settings. To protect the long-term public interest by maintaining and enhancing open space options; public accessibility; and cultural, wilderness, visual, and natural resource values..." These two objectives are defeated by the inherently noisy nature of helicopters which are urban.

Marine Mammal Protection Act of 1972

"NMFS also administers the Marine Mammal Protection Act (MMPA), which prohibits the "take" of all marine mammal species in U.S. waters. "Take" is defined as: "to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Harassment is defined in the MMPA as "any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild; or has the potential to disturb a marine mammal stock in the wild by causing disruption of behavioral patterns, including but not limited to, migration, breeding, nursing, feeding, or sheltering." If this act could be applied to the land mammal *Homo sapiens*, we would find them being harassed ("annoyed" by your own admission in this DEIS) by disruption of their "behavioral patterns, including, but not limited to," hiking, gardening, biking, cockpits, sitting outside on a deck, etc. Their solitude has been destroyed and their behavioral patterns both inside and outside their lairs has been changed.

The Bald and Golden Eagle Protection Act of 1940 (as amended)

"Administered by USFWS, the Bald Eagle Protection Act of 1940, as amended, makes it unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, their parts, products, nests, or eggs. "Take" includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles."

Just an anecdotal observation: when many helicopters are flying over my neighborhood within a short period of time, and particularly when they are passing overhead both inbound and outbound simultaneously, on many occasions I have observed the eagles which hang out here swoop off their perches and circle around, calling out in the tone they reserve for when they are disturbed by something, such as raven attacks.

Federal Aviation Administration

"The Juneau Air Traffic Control Tower (ATCT), operated by the FAA, Air Traffic Control Division, has authority over aircraft movements in the airspace encompassing a 3-nautical-mile radius of the airport, up to 2,500 feet above ground level (AGL). As noted earlier, the FAA, in cooperation with CBI, has direct control over aircraft flight paths within the Airport Influence Zone. They do not have authority over aircraft noise within this influence zone. If CBI were to approve a noise ordinance, however, FAA concurrence would be required." Most of the noise complaints/impacted residential areas lie within this 3-nautical-mile radius. Maybe CBI can figure out how to institute helicopter flightseeing flight paths which do not go over residential areas as part of some mitigation.

FAA Advisory Circular AC91.36C, March 19, 1984

"In addition to the 300-foot rule cited above, the FAA has also issued AC91.36C, dated March 19, 1982, that recommends a 2,000-foot, ground-level restriction over noise-sensitive areas. These guidelines, in addition to the following letters of agreement (LOAs), cover air tour flight operations." If this is the case, then the helos should cross MP at an elevation of 2500 feet above sea level. Not possible for them to climb that high that fast they say? Then how do they climb over Heintzleman (Hiz) Ridge reaching that elevation, or higher, in approximately the same amount of ground distance traveled?

Letter of Agreement, May 10, 1999...may have been revised more recently than this date.

Voluntary Letter of Agreement, May 29, 1997

"It remains a right and responsibility for pilots to deviate from any procedure if required to ensure the safety of their aircraft, or when weather or traffic conflicts require." These traffic conflicts have increased with increasing traffic over MP. This usually results in helicopter traffic being diverted north of the agreed upon flightpath over the beacon on the peninsula. That translates into increased noise in my neighborhood. If the number of flights increase, the

8C2 26 (cont.) traffic conflicts will increase, and with them the noise will also increase dramatically here, and anywhere else that traffic conflicts cause the pilots to deviate from "normal" flightpaths.

8C2 27 Mitigation Recommendations and Mediation Efforts

"Controversy over this tourist activity has been building in the region, fueled by what residents and hikers in the flight paths report as continuous and cumulative noise." Residents and hikers do not merely report this noise as cumulative and continuous...this is what we absolutely experience! *The only truly effective, long-term solution to mitigate the noise from helicopter flightseeing on the Juneau Icefield, given the current flight paths and heliports, is to significantly reduce the number of flights!*

8C2 28 Flightseeing Operators' Action Plan

"Demonstrate noise levels associated with different aircraft, routes, numbers of aircraft, and spacing of aircraft." If the operators have done these demonstrations, this information would be very useful to see and should be included in the EIS. If they haven't performed these demonstrations, why haven't they? This is their plan, after all. The mitigation measures in their plan have made little difference overall. One of the biggest problems I see with "quiet technology" is that it does not reduce the noise levels enough. It would need to reduce the decibel level by 10 to 15 dBA to be tolerably quiet in my neighborhood. A decrease of 3-4 decibels, which is only a bit noticeable according to the studies you cite in Chapter 4 would be negated by any increase in flights. A doubling in flight time yields a 3 dBA increase in noise, or more. The operators have probably done about all the "fine tuning" of the flight paths they are currently using that can be done. Tweaking the current paths will not really help the noise levels much. The measures they have taken would be more effective if there were far fewer flights.

8C2 29 Tourism Advisory Committee and CAJ Recommendations

I disagree completely with the TAC recommendations 1 and 2. Modest growth should not be allowed; the noise levels are already much too high. Quiet technology should not be relied on to reduce the noise levels (see comments in above paragraph). Using quiet technology and also increasing the number of flights could very well result in even more noise! "More 'resident friendly' flight paths and altitudes" are not possible unless the flights no longer pass over any residential areas. The FAA permanently moved the helicopter flight path to my neighborhood after the last EIS increased the number of flights to the point that the FAA decided to split fixed-wing from rotary traffic to handle the load. Perhaps if the numbers decrease, the traditional flight route over MP at Engineers Cut would be re-established. This would be the noise exposure most folks bought their homes/property at, not the current route and activity levels. While the USFS may not control the flightpaths, their actions led to the diversion of helicopter traffic to this end of MP. Page 1-8 states that when changes were authorized for alternative landing sites, diversions were to be done "to avoid shifting impacts." It would have been nice for many CBJ residents if this had been instituted years ago, before the current flightpaths were instituted. It's been said the FAA is not interested in moving the flight paths, thus just moving the noise impact to another neighborhood, but that is exactly what they did to my neighborhood on FCR without consulting any of us.

8C2 30 "Although the formal mediation process is no longer active, the Forest Service continues to work cooperatively with all parties to develop feasible solutions and define mitigating measures within the Forest Service's jurisdictional authority." What are these efforts? Please list what has been happening and what the results have been.

8C2 31 Table 1-3

Many excellent ideas presented on this table should be explored further. In particular, I would like to see the following incorporated into a "voluntary agreement" between the operators and the USFS (and others could also be implemented by this method):

8C2 32 Limit the number of flights per day/per area and prohibit more than a 3 (could be 5) overflights of any neighborhood per hour. "ESTABLISH RESIDENTIAL NO-FLY ZONES" is my real preference. DO NOT "establish fixed flight paths over residential areas," eliminate them! Complete all flights by a certain hour (not just take off by a certain hour), including all "support" flights. "Heavily monitor pilots the first 2 weeks of the tourist season" for adherence to flight routes; spot-check weekly. Zoning....The flightseeing activity has created an industrial zone in the sky over our homes, which is incompatible with a residentially zoned area. *** "Set goal to actually reduce the level of noise that residents are being subjected to; the goal should not be to merely control or cap growth." ***

8C2 33 Mediation Results

8C2 33 "Alternating use of West and Mendenhall routes to allow each neighborhood to have additional quiet periods during the day." This seems like a great idea, but where I live, due to the way noise travels, this routing decreases the noise exposure at my house by only 5 dBA at most. The noise is still well above the background level and is still quite annoying when I am trying to enjoy what used to be the natural quiet in my yard.

8C2 34 Noise Study Recommendations

8C2 34 "Alternative flight paths can reduce the overall noise level." "Although the preferred flight paths are only available during good weather, their use could be increased if improved weather information were available and if compliance monitoring were improved." Weather information may not help much, but requiring the use of these routes during good weather would. Temco should use only the Htz Ridge route on good weather days; they currently use the other routes as well for their large flocks of helos.

8C2 35 "Enhancement of the existing Fly Quiet/Fly Neighbory program could be accomplished with better monitoring, grading, and publication of the results." Compliance should be the operators' job and not the public's.

8C2 36 Current and Ongoing Activities

8C2 36 "In particular, the Forest Service is taking into consideration the establishment of a noise budget for the icefield landing tours." I am deeply concerned about the "noise budget" concept. The base level for the noise budget should use an estimated 1994 level of noise, not the current level which is too high. Would this be based on the yearly amount of noise generated, or what? Table 4-1 shows that greatly increasing the number of flights can have little effect on certain methods of calculating noise levels, but I know from bitter experience that the more flights per day and the more flights per hour greatly increases my level of annoyance! This budget needs some basis in reality and be demonstrated to work in Juneau to reduce the noise levels. Adopting a budget should depend on having an actual, readily noticeable reduction in the flightseeing noise experienced by Juneau residents.

8C2 37 Chapter 2: Alternatives

8C2 37 (Please review the data for Figure 2-1...the landing number for 1994 appears to have been graphed incorrectly or be totally wrong based on number from 1995 EIS; the 2001 landings should be updated to the actual number of landings or left off the graph entirely (it appears that the number of authorized landings was used).

8C2 38 Alternative A would be wonderful...no more helicopter flightseeing landings. The silence would be golden. BUT, I am sure this is unrealistic. I do not wish to put any of these operators out of business, which it might do for the smaller ones. The flightseeing tours are fun for the tourists, BUT there is just too much noise due to the large number of landings authorized in the past. I hope you reduce them with this new EIS.

8C2 39 Alternatives B through G contain statements to the effect that "All operations would maintain a minimum 0.5-mile landing distance from the end of the West Glacier Trail and a minimum 1-mile landing distance from the end of the Herbert Glacier Trail" with a few minor variations. A half-mile landing distance from the end of West Glacier Trail is insufficient to dampen the noise of the aircraft. I live about 1/2 mile from where the helos cross MP and it is loud here. It would be even worse there with less vegetation to buffer the sound and more exposed

rock and ice surfaces which tend to reflect and increase the noise in a "surround sound" experience. In our area the distance drops the decibel level only 5 dBA. I measured underneath the flight path one day and again at home under the same conditions. To be tolerable, the buffers should be a minimum of one mile. The solitude and quiet experience hikers expect on the trails is totally destroyed by the invasion of helicopters.

Table 2-1 (comments on details....) could be improved by the addition of a column showing the same information for the 1999 actual use level (using 153 days for the season...no holidays were off and neither were the weekends). Also, I believe that the correct number for the "days per season landings are allowed" for Alternative B should be 106.

I would prefer to leave the "hours landings can occur" at 8:30 a.m. to 8:00 p.m. for all alternatives (and for use in the bid process), but make 8:00 p.m. limit time by which all flights, including support flights, must return to their heliports. Flights are out as late 10 p.m. or worse some nights.

In my opinion Alternatives B through G are not consistent with the Forest Plan in that they do not offer "protection and management of different forest resources," which should include, as an important part of the Tongass National Forest environment, the natural quiet and solitude of the forest at large and on trails and in cabins specifically. Alternatives C through G also do not "Conduct activities in a way that minimizes adverse impacts to popular or highly valued local areas with outfit/guide operations." (from Recreation and Tourism Forest-wide Standards and Guidelines on page 1-20). By allowing the same or increasing levels of noise from flightseeing tour operations to continue, by maintaining or increasing the number of flights, the demonstrated noise impacts to residences, trails, and cabins, which are all "popular and highly valued local areas," continue a large negative impact on these areas; the noise impact cannot be minimized without a decrease in the number of flights.

For Alternatives D, E, F, & G, I completely disapprove of exceeding the number of icefield landings that actually occurred in 1999, mainly because of the noise factors detailed above in many places. Alternatives D and E would increase the number of landings 14% above current (1999) levels. Alternative F would increase it by 45%, and Alternative G would increase the landings a whopping 84% above current levels. Because I am greatly impacted by the noise caused by large numbers of flightseeing landing tours, increasing the number of landings is totally unacceptable to me. Leaving the levels where they are now (Alternative C) is not a good solution either. The noise levels are already too high. I encourage you to lower the number of flightseeing tours to the actual landings in 1999.

For Alternatives D, E, F & G, I do not like the addition of new landing areas, new flight paths, and expanding "the area north to the Haines/Juneau Borough line" which will only spread out the noise over a larger area, increasing the noise impacts in CBI. I do not like the idea of motorized snow vehicle tours. These will only spread a new kind of noise around which will go on continually while folks are riding on them. The noise from snow machines is very pervasive and can be heard for miles. They are incompatible with the natural quiet one would expect in a semi-remote recreation LUD. Just because someone comes up with some idea for using the icefield does not mean that it must be provided for. The area this new use is proposed for are near popular local trails which are a bit quieter than others which are more heavily impacted by the helicopter overflights. The increased noise in more remote/currently less impacted locations is also the reason I do not like the ideas of landing on Eagle Glacier and Death Valley (F & G) nor on Antler Glacier Lake (B).

Alternative G: "This alternative is intended to address issues raised in prior environmental analysis and appeals related to noise and visual disturbance to residents and ground-based recreation users, and impacts to wildlife, by maintaining restrictions contained in the current permits." The noise issue may be mentioned, but the current restrictions are insufficient, as witnessed by the many, many noise complaints of residents and recreational users of the forest. Alternative

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F's similar statement does little more than G to mitigate the noise problem. Residents have asked for noise reduction and this is not really addressed by either F or G.

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For Alternative C, the only things I like is that there are no new flight paths, and Sundays and holidays would be flight-free. I do not agree with the idea of leaving the numbers of flightseeing tours where they are now. The noise levels many people who live in Juneau have to face every day of the tourist season (because one never knows if there will be flights or not until the day shows up) in order for some tourists to enjoy a brief trip to a glacier are unreasonable and burdensome.

The only good thing about Alternative D is that there would be no flights on Sundays and holidays.

I do not find anything I can support in Alternatives E, F and G.

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Of the Alternatives you have listed, Alternative B is the one I most prefer. I like the idea of reducing landings to the 1994 level (before the 1995 EIS which raised the number of permitted landings). Many of the folks I have spoken with were highly in favor of this level; after 1994 is when the noise levels reached outrageous levels. However, I propose the following modifications to what is listed for Alternative B: First, reduce the number of landings immediately from the 1999 actual use level by 7% per year to the 1994 actual use level. Alternative B as it now stands offers no noise relief in 2002, and only some the following summer. Two more summers at these noise levels are too many. Why do the numbers of flights in Alternatives E, F & G increase with the 2002 season, but in Alternative B they do not start to decrease until the 2003 season?

B22
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Secondly, allow flights 7 days per week (weather is a factor here, and some days they just can't fly), but put a maximum limit of 104 landings per day (which is what would be allowed with 5 days per week of landings). Using the number of landings per year in 1999 of 16,706 and dividing by 153 days for length of season (the length of the season in 1999 is about what it is now with no holiday or weekend days off) the average number of landings per day would be 109, not much of a difference! If you leave the hours of landings as proposed...8:30 to 6 p.m... it would seem that the majority of folks who work an 8-4:30 job have fewer impacts when they are at home. But in reality, the flights can be out for two hours after the current CBI agreement time of 7 p.m. for last flightseeing departure. So, 6 p.m. may not make a real difference in how late in the day the noise lasts.

B22
50

Another way to handle the hours of operation and the number of days of operation would be to leave them both as they are currently. They could be used as "bargaining chips" for the operators when they bid on the more limited number of permits which would be available under Alternative B. (Except holidays should be flight-free days in whichever Alternative is chosen. Residents would enjoy those days off from the continual noise.) Operators who agree to fewer hours and to one or two flight-free weekend days could be given "bonus points" in the bidding process, as they would be working toward an overall reduction in community noise levels. I am in favor of the idea of allocating the number of landings based on "a prospectus and bid award process," but would like to see a base of say 250 landings per company, with the remainder "up for grabs" based on how well the companies have complied with past agreements on flightseeing noise and what they promise to do in the future. Would these be bid yearly or for the length of the DEIS?

Alternatives Eliminated From Detailed Study

Thank you for eliminating satellite heliports from this study. Heliports were looked at seven years ago in the last EIS and only now CBI is saying officially that they might be a good idea. Somehow I doubt they will be constructed and in use by the end of the 2006 flightseeing season. One way to deal with the possibility of satellite heliports would be to distribute only the low number of Alternative B until the heliports are in place,

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B/C2 51 (cont) and then MAYBE allow for a modest increase to the current use level after the heliports demonstration that they will indeed lower noise levels significantly.

B/C2 52 Table 2-8. If several heliports are already at the airport, why is number 19, Juneau International Airport on the list of satellite heliports (which implies a location away from the airport)?

Comparison of Alternatives

Noise Impacts to Residents

B/C2 53 Number of flights—Paragraph 2...it would be good to note here that the number of landings for Alternative B are from the actual number of landings used the year before 1995 EIS.

Frequency of Flights—I have great problems accepting this metric. Flights are not evenly spaced throughout a day nor among the days throughout a week. I typically get 15 to 20 overflights per hour during the afternoon and early evening hours just at this, the north end of town, far greater than the "average" number using the 1999 actual figures and assuming 153 days of landings (see page 9 for reason to change this figure) which would be 9.5 landings per hour (19 overflights total for the whole town). Additionally, stating

B/C2 54 "Alternative B's superior performance in this regard (of 10.9 landings per hour...higher than the current average) is indicative of a tradeoff between spreading flights and landings over more days of the week and more hours of the day, rather than focusing flights and landings in fewer days a week and/or fewer hours per day, as in Alternative B" only tells part of the story. The theoretical lower number of flights per hour would be greatly offset by the overall increase in the numbers of flights and the greater number of days of operation. If Alternative B were adjusted to the same number of days and hours of operation, the average number of landings per hour would drop to only 6.8 landings per hour. If the operators were limited to no more than that number of landings per hour, then many of the noise complaints would disappear. Since about 1/2 of the flightseeing tours cross over MP, that would drop our overflights to a maximum of 7 overflights in an hour! A very large improvement, especially if they had to fly them all during the first 5 minutes of any hour. This almost happens now when Temco sends out one of its flocks of 5-6 helicopters, except they go out (and return) twice per hour. I do not like the idea of spreading out the flights even more over an hour. Get them all done in the first 5 or 10 minutes and then allow no more peace and quiet, it's the dribbling along that is most annoying. Just when you think you might get a little season...they just dribbled on all day the last cruise ship day, Sept. 25th)

Noise Impacts to Recreationists

B/C2 55 Flightseeing noise impacts on recreation is a serious problem, especially for those who live near flightpaths. They cannot escape from the noise at home or on the trails. Wherever they go, the noise goes as well. A local radio commentator recently said that private lands are for the owners to use and enjoy. But public lands generally remain undeveloped and are for the general public to use to fulfill the need to refresh and renew themselves. My private land is not available for use and enjoyment by myself or my family for large parts of most summer days when I am driven indoors in a foul mood by the pervasive noise. If it were available, I wouldn't need to leave home to find renewal and refreshment, but simply be in my garden. It would be great to have our many trails around Juneau for renewal and refreshment, but unfortunately when we head to those to escape the bedlam from the flightseeing noise at home, in the hopes of finding some solitude, we are denied the quiet we need on these trails as well. I have liked many local trails in the last five years and have not found a single one where the noise from flightseeing helos cannot be heard. I had to escape to the Yukon for a short trip this summer to get away from the noise. That is a very sad comment to have to make! Alternatives F & G are particularly onerous to recreational users of the Forest whose activities are quiet (hiking, berry picking, photography, "chilling out" at the beaches, etc.) due to the large increase in numbers of landings, therefore they should not be selected.

Impacts to Wildlife

B/C2 57 "Concern has been expressed that the stress from helicopter activity could cause habitat abandonment or long-term population declines for some species. However, by adopting the guidelines outlined in this EIS, all of the action alternatives would have negligible effects..." I doubt that any increases at all in the number of flights will have negligible effects. In addition to the anecdote on eagle behavior cited above, I believe that the sheer increase in the numbers of flights will have a detrimental effect. The helo flights are not evenly spaced over the day and over the week...they tend to bunch up quite a bit. It is this heavy traffic, helos flying towards and away from the glaciers in large flocks, with flocks in close proximity both temporally and spatially, which tends to annoy eagles and humans alike, and I suspect other wild animals are also annoyed by this flying behavior of helos.

Chapter 3: Affected Environment

B/C2 58 Area Residents...paragraph 3 seems superfluous as it applies to SEAK residents and not Juneau residents (see first sentence of this section). Yes, there are economic problems in other areas of SEAK but I do not see how it relates to the level of helicopter flightseeing in Juneau. Maybe less flightseeing in Juneau would provide economic assistance to other SEAK communities since the tourists could spend their money on something else in other towns. This section should discuss the decline in value of residences near the flightpaths. This can have a severe economic impact on individual families when they try to sell their homes and either cannot, or cannot get the price they would want for their homes in a quieter location. In addressing the amount of operators' wages and salaries that stays in Juneau...how much leaves Juneau because most pilots and other employees are only hired for the summer?

B/C2 59 Some residents are more heavily impacted by the flightseeing noise than others due to where the flight paths are now located (most were established after our homes were established!) and their choice of recreational activities, which may be of the more quiet varieties.

B/C2 60 This would be a good place to state the interference in residents' day-to-day activities caused by flightseeing noise. Such things as the following could be included: gardening, biking in one's own neighborhood, barbecuing, relaxing on a deck, opening windows for fresh air, playing outside in one's own yard, camping in one's own yard, listening to and observing birds, tanning or napping in the sun, napping inside in the daytime. Having helicopters fly so close to residences leaves one with the feeling of being 'spied on' by the intrusion of the helicopter overhead....if I can see them, they can see me...it is an invasion of privacy!

Recreation Areas and Recreation Use

B/C2 62 Forest Service Trails: Table 3-1 "The Forest Service has no quantifiable data on trail use. These numbers are for the entire calendar year. Estimates are based on anecdotal observations." In the year 2000 I saw a trail meter on Herbert Glacier Trail. If the USFS wasn't counting folks, who was? (I haven't been on that trail yet this year, so I don't know if it is still there). In estimating the number of folks using the trails, were the large numbers of tourists using certain trails included? It should be noted that horses, including horses for hire, use some of the trails in the CBJ area

Juneau Icefield Backcountry Users

B/C2 63 "Backcountry use on and adjacent to the Juneau Icefield also includes other uses that do not require permits, which entail nonconformant flights (strictly charter flights) to the icefield and adjacent sites. These activities include non-officer-guided icefield weddings, bell-acting, bell-biking, photo shoots for commercial ventures, wildlife viewing, bull-fishing, and similar activities." Are folks always dropped off or does the pilot still act as a tour guide as well? Maybe some of these activities really should have permits.

TEMSCO Helicopters, Inc.

TEMSCO "is authorized a maximum of 8,800 landings." WOW! If they could use only their average number of landings each day, which is about 58, they would be done flying over my neighborhood in less than 5 hours each day. They typically send out 12 helos per hour on days they are flying and multiple cruise ships are in. But we get more than 58 per day. "This tour generally consists of five helicopters in a group flying every 25 minutes." I often observed them this summer, and in summer past, in flocks of six...not two groups of three, but six in one distinct group! I had other folks count with me to confirm the groups of six since in the past they have insisted they only field flocks of five. The noise from these flocks of 5 to 6 helos typically takes 3-5 minutes to drop back to background noise levels at my home.

"The preferred route, weather permitting, is up Hix Ridge and back." This is strictly a "good weather" route, which typically means sunny. This is certainly my preferred route for them to fly, but even on clear, sunny days they fly inbound and outbound over MP headed for the Mendenhall Glacier area.

Coastal Helicopters, Inc.

This section needs some updating... Their tours often consist of two or three helicopters (by their own count stated to me) and are rarely sent singly. Their lone copter flights are most often those chartered for other work. "All four flights generally follow routes as identified in the LOA with the FAA." Most of their flights go outbound and inbound over MP.

Era Helicopters, Inc.

"These facilities consist of eight to ten temporary housing facilities for the guides, as well as approximately 180 sled dog houses and other structures designed to blend in with the glacier environment." Just how do 180 sled dog houses, etc., "blend in with the glacier environment?"

NorthStar Trekking, LLC

Some of these trekking tours will necessitate four overflights of my neighborhood for one "excursion"...drop them off, return, pick them up, return. "West departures fly over Auke Bay to the ferry terminal, then turn north along Spaulding Meadows for either Mendenhall Glacier or Montana Creek." Please insert MP before "Auke Bay," so you don't give the impression that they do not fly over homes but only over water before they get to the ferry terminal area. When any of these companies talk about a west departure they are talking about flying over MP. NorthStar often sends up two helos at a time, sometimes one and sometimes three.

I am emphasizing that the vast majority of north- or west-bound helicopter flightseeing tours fly over MP both outbound and inbound. Your 1999 noise study failed to show this. Other routes are available, but given Juneau's weather are used infrequently, or if they are deemed "too busy" traffic will be diverted to fly over the peninsula. Also, on very busy days, this neighborhood has helos flying over it both inbound and outbound at the same time. Talk about noise!!!

Non-recreational Uses

I think Echo Ranch Bible Camp was accidentally put in the wrong category. What is a camp for, if not recreation? In addition to this camp, the Boy Scout Camp, the Methodist Camp, and Adlersheim should be included and moved into the "Other Recreation User Groups" section.

Wildlife

Management Indicator Species

"The project is not likely to affect the red squirrel (*Tamiasciurus hudsonicus*), marten (*Marles americana*), river otter (*Lutra canadensis*), Sitka black-tailed deer (*Odocoileus hemionus sitchensis*), Vancouver Canada goose (*Branta canadensis fribia*), Red-breasted sapsucker (*Sphyrapicus ruber*), hairy woodpecker (*Picoides villosus*), or brown creeper (*Corilla americana*) because their habitat generally does not occur near flight routes or landing sites." This statement is not true. I have seen all of these animals near the flightpaths, though not always when the helos are near, except the river otter or marten.

Black bears are on land areas all over town, not just near a few of the flight routes listed on page 3-10.

In the mountain goat and bald eagle sections you refer to Figure 2-8, but you probably mean Figure 2-9.

"The project is not likely to affect the Queen Charlotte goshawk because its habitat generally does not occur near flight routes or landing sites." Well, let's see...I saw a goshawk the first year or two after we bought our lot, and maybe once since. So it is hard to say whether or not the increasing helicopter flights scared them off. I have not seen one in several years.

Acoustical Environment

Please realize that when measuring noise, that sounds like bird calls, rain, running water, dog barks, etc. have their noise rapidly attenuated over a much shorter distance than the noise from helicopters and fixed-wing aircraft. If I am 1/2 mile from the loudest singing bird or most barking dogs I will not hear them, but I will certainly hear a helo that is only 1/2 mile away. It seems specious to include natural noises, "gardening activities", and "people walking on the beach" as part of your background noise levels. Including man-made noises such as jets taking off, helicopters, automobiles, and fixed-wing aircraft in background noise levels at several of the sites seems totally wrong. Also, helicopter noise events from a single helicopter last much longer than that from fixed-wing aircraft flying by, or wheeled vehicles driving down a road.

Noise is a very subjective topic. People have different sensitivities to noise. "About 130 (decibels) for the average pain level" I am certain does not work for me. My ears start to hurt at 100 dBA (measured by turning the stereo to static and cranking up the volume). They would never last to 130 dBA...eight times as loud! They have been hurt by a helicopter flying too low over my property before...the physical PAIN lasted for over an hour! According to Paul Dunholter's comments at the CBJ heliport meeting on Sept. 25th of this year (he has been working on the CBJ noise studies) dBA is not the best way to measure helicopter and other aircraft noise, such as some jet engine noise. The lower frequency sounds from helicopters is very annoying to people and penetrates the exterior walls and windows of people's homes. We are annoyed by high noise levels in a range which dBA fails to measure or represent accurately.

SEL and Noise Duration: When looking at SEL in my neighborhood, please note the "Merry-Go-Round" effect of the current helicopter flightpaths...first they fly south of us over the peninsula, then turn to go over Auke Mountain, which is to the west of this neighborhood, and head to the Mendenhall Glacier to the north and either reverse that procedure, or sometimes they return down the east side of MP which is to the east of this neighborhood. This part of FCR is in the center of this circus of noise, but it is not fun to be here! The SEL here goes on for many minutes at a time: the time above background noise levels ranges from 90 seconds for a single helicopter up to five minutes for a flock of 5 or 6 "whirlybirds." (From page 3-23) "The relationship between duration and noise level is the basis of the equivalent energy principal of sound exposure. Reducing the acoustic energy of a sound by one-half results in a 3-dB reduction. Doubling the duration of the sound increases the total energy

of the event by 3 dB." Due to our location in the middle of all this noise flying around us nearly in a circle, sometimes for 40 minutes or more of an hour, the duration of our noise is probably about three times what other parts of town experience from helicopters simply flying past their location on a straight path. Typically, the highest overflight numbers in the FCR area are from 1-6 p.m. with nearly constant noise, with a bit fewer flights 2 hours before and after that time.

DNL: CBJ without aircraft flying is a much quieter town, even when the helicopters are the only aircraft missing from the noise milieu. Rather than the FAA level of 65 dBA as their standard for too much noise, the level recreationists report in places such as parks should be used (55 dBA). From the CBJ Flightseeing Noise Assessment Page 2-27 in referring to a 1974 EPA document: "In this document, 55 DNL is described as the requisite level with an adequate margin of safety for areas with outdoor uses. This includes residences, and recreational areas."

"The noise levels measured in and around Juneau fall within an expected range of aircraft noise that is generally characterized as moderately loud in the outdoor environment. The 2000 Noise Assessment showed an approximate 20-dB lessening in sound levels indoors compared to the same-time outdoor sound level (Michael Baker et al., 2001), which suggests indoor sound levels in the quiet range." I expect most folks living near the flightpaths would characterize the aircraft noise as loud; there is nothing moderate about it. Our indoor sound levels from helicopters drop only to 50-55 dBA (from a level of 60-70 dBA outdoors) which does not put them in the quiet range.

Table 3-5

The numbers presented for site 2 (near my home) do not represent what actually occurs in this neighborhood. The answer lies in the weather during the noise measurements. "All but one of the measurement days had exceptionally good weather and probably represented peak helicopter activity." When the weather is "good" the helicopters use the Htz Ridge/Thunder Mt. route a lot more. Our neighborhood gets hammered on the very many more poor weather days throughout the summer. A more representative site would be number 21, Glory Lake, which has the same background level, a slightly higher Daytime $L_{eq,15}$ and 1 dBA lower noise from helos. That site only had 13 helos per hour, our typical number would be closer to 17 or 18 (or more since not all traffic diverted over the Htz. Ridge route during your noise study) during that time frame had the weather been unfavorable for the ridge route (17 helos/hour reported for site 5). The CBJ noise study consultants may also be able to provide more realistic numbers since their study was supposed to occur over a longer period of time. I often observed 18 to 22 helos per hour in the logs I have kept occasionally over the past two summers.

I request that the number of helos crossing MP be reviewed and modifications of some sort made to this table, particularly since they are used for calculating numbers and drawing conclusions in Table 3-7 (discussed below). If you still doubt there is a problem, in the footnotes for Table 3-5 you note "The DNL was at or above 55 dB at 11 of the sites and it equaled 65 dB at Site 6, Glacier Highway/Fred Meyer." The 2000 Noise Assessment (for CBJ) you often refer to had FCR as their highest average DNL site at 58, with a maximum DNL on FCR of 65. Your DNL for West Juneau is 56 and the CBJ study has an average DNL of 51, with a maximum DNL of 54. (I would have used site 24 but did not know if you meant Bonnie Brae instead of Bonnie Doon?). The "modified DNL" table on the CBJ study page 4-23 lists 55 for FCR, which is exceeded only by North Douglas at 57 DNL. The background levels I can compare seem to be fairly similar between the two studies. Your measurement of noise impacts on FCR are not at all representative of the typical acoustical environment which is foisted on this neighborhood by the helicopter flightseeing noise.

The Time Above metric could use some adjustment. We have to shout to be heard above 70dBA, speech interference is very apparent at 60dBA, and aircraft are clearly audible below 50 dBA and are becoming annoying when their noise levels exceed 50dBA. The 'time above' these adjusted levels would be higher.

Table 3-6 is over 30 years old and a bit out of date. My dishwasher puts out 51 dBA at 4 feet. My garbage disposal is 2 decibels quieter on the C scale than on the A scale. We play our living room music at 52-54 dBA...60 max when it is a "boomier" piece of music. We tried it at 70 dBA and it was uncomfortably loud. 50 dBA is the level at which the helicopters are annoyingly loud above background levels. Maybe 40 is what should be labeled "quiet." My meter starts detecting sound at 50 dBA and things are no longer quiet when that threshold is reached. Tables like this have always bothered me since they are very subjective and don't give a true comparison to the noise levels of things like aircraft noise since they ignore the more powerful lower frequencies at higher noise levels that things like helicopters are putting out.

Helicopter and Fixed-Wing Aircraft Contribution to Ambient Noise Level: Table 3-7

"Tour helicopter noise is a major contributor to the daytime ambient noise at those locations where the contributions from tour helicopter noise is within 3 dB of the measured daytime $L_{eq,15}$." Based on the problems with the collection of data for FCR referred to in the section under Table 3-5 above, the Leq of Tour helicopters for FCR (site 2) should be modified to 54, as it is for either Htz Ridge (#5) or Glory Lake (#21), or to 52 which would match the readings for West Glacier Trail (#20) which is an area most of the helos travel over after leaving the FCR area on a "normal" weather day. This would result in flightseeing helicopters being classified "a major contributor to the daytime ambient noise" in the FCR neighborhood as well, which certainly agrees with the experience of the majority of my neighbors.

Chapter 4: Environmental Consequences

Table 4-1 needs to be re-worked since the number of landing days in 1999 should have been 153, as it is for Alternatives E, F, & G...there were no holidays or weekends designated "flight free days."

	Actual 1999	Alt. B	AltB1	Alt B2	AltB1?	Alt B2?
# landings	16,706	11,881?	11,881?	11,881?	128	150
days/season	153	106***	104	93	79	79
landings/day	109	104	93	9.5	9.5	11.5
op hrs/day	11.5	9.5	9.5	10.9	9.8	6.9
lands/hr	9.3	10.9	9.8	6.9		

(Alternatives B1 and B2 are based on some modifications I proposed earlier to Alternative B.

***The number of days per season for Alt B is actually 106...which means many spots in the DEIS may need amending with new number calculations for comparisons, etc.)

Therefore the dB changes in Leq (which is the average total sound energy spread out over an hour) compared to actual landings in 1999 need to be recalculated and are as follows: Authorized in 1999 (+0.6); B (+1); B1 (+0.2); B2 (-1.3); C (+0.8); D (+1.5); E (-0.3); F (+1.7); and G (+2.7). Carrying this one step further: To calculate how much noisier the reality of large numbers of copters flying on most days from about 11 a.m. to about 6 p.m. or so is now versus what the "average" expected noise would be if the flights were spread out evenly Change in dB = $10 \cdot \log$ (reported helicopter flights of 64 per hour in the 1999 study (page 3-23)/9.3 landings per hour in 1999) = +7.4dB.

"The change in the $L_{eq,15}$ ranges from zero to 1.7 dB" should be changed considering only your Alternative B to read "ranges from -0.3 to +2.7 dB." (Also change similar statements throughout this section, particularly next to last paragraph) This is interesting....fewer helos will result in more noise? But it only looks this way because

of the averaging effect objected to just above. This makes the number of proposed landings for Alternative G even more troubling...since the flights are not spread out evenly, we know we would really get hammered by that number of flights. But in addition, how and when will they fit almost twice as many flights in to the current flight paths? The noise and copters are nearly continuous now!

"A change of 3 dB is considered to be barely detectable" vs statement in footnotes of table 3-5 "Most people can detect changes of 2 to 3 dB." There are a few inconsistencies in what different changes in dB level really indicate and how detectable (as opposed to detectable) they are. "Where existing noise is already considered unacceptable, any increase in the noise level will be objectionable..." This effect may have to do with Paul Dunholter's comment on Sept. 25th to the effect that once you have passed a person's noise annoyance level, the noise must drop considerably below that level for them to no longer be annoyed.

Thank you for recognizing "that it is the duration of noise and the number of events, rather than the absolute noise level, that is most at issue." But the absolute noise is absolutely an issue, too!

Environmental Consequences for Residents

How Noise Effects on Residents are Estimated

General Health: "People residing in neighborhoods exposed to commercial aircraft noise had significantly higher stress and noise annoyance levels...Those reported as most adversely affected were exposed to an average 399 events per day exceeding 65 dB(A)." This works out to 17 events in a 24 hour day, and we regularly get helicopter "events" through FCR of 60-65 dB(A). My guess is that these measurements were in a far less rural area in Minnesota than what FCR is. This is a naturally quiet neighborhood, as shown by your noise study, when the copters are not hammering through. Also your Table 3-5 reports a "Typical Aircraft SEL" for helicopters of 77dB for FCR, as opposed to occurring just 2-5% of the time.

Regarding the 1998 McDowell survey...I am sure results would be different if responses were elicited only from folks living near flightpaths. A friend of mine was very annoyed by the helicopter noise until she moved to a quieter location and now she doesn't really care about the noise the rest of us still have. If you consider the 32% who want flightseeing reduced to be "highly annoyed," that corresponds to a 75 DNL level on Figure 4-1, a DNL we are not calculated to have.

Alternative B: please fix references of 114 days in the season to 106, and watch throughout all these sections on the Alternatives that the number of landing days for 1999 should really be 153.

Alternatives E, F, & G would increase flights over my neighborhood since flights to the new areas to the north would go over MP. Alternative E: "The amount of noise residents would experience would change to the extent that additional flights to the new areas north of Juneau would occur Monday through Friday, with an associated decrease in flights to other areas." Flights to the north would not help the residents of MP, would probably increase the numbers of flights here, and we shouldn't spread noise to areas which are currently not as impacted by flightseeing noise.

Alternative G: "Table 4-1 illustrates that the noise to which residents are exposed under Alternative G would increase by 1.7 dB compared to the noise level associated with the number of actual landings in 1999." This section and others need to be updated with the recalculated figures for Table 4-1, in this case an increase of 2.7 dB.

Environmental Consequences for Recreationists

"Recreation activities potentially affected by helicopter noise include...off-road vehicle use, and snowmobile use." How are these very noisy activities affected by helicopter noise? Also, horseback riding should be added to the list of

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trail uses. Why are some trails listed and not others? They should all be listed as all are currently affected. Missing are Dan Moeller, Mt. Junbo (Bradley), Treadwell Ditch, Yankee Basin, Eagle, Herbert, Windfall Lake, Pt. Bridget Trail, and Mt. Juneau.

Much of this section could be applied to the consequences for residents as well, such as "interference with the enjoyment of natural quiet," and "Two aspects were found to be important: the time aircraft are audible or noticeable and the dose (or loudness) of audible aircraft." For Figure 4-2 "For example, at 75 dB, approximately 37 percent of residents are expected to be annoyed (see Figure 4-1), while 65 percent of recreationists are expected to be annoyed (see Figure 4-2)." Expectations may not fit reality because Juneau is not a big town, but more rural in many residential areas the helicopter paths cross. Also, good surveys have not been conducted of the affected neighborhoods, only area-wide surveys. Taking the Leq from Table 3-7 which I would expect for FCR (54) gives an annoyance level of 60% which seems a bit low from my observations, but far closer to reality than Figure 4-1. Figure 4-2

probably fits CBJ better than Figure 4-1 for expected residential annoyance. Please report the percentage of annoyed respondents, rather than "most" from the Obameyer study cited on page 4-11. "The lower the noise and the longer it is audible, the more recreationists on the ground will be annoyed," just as it is for residents. "The point at which people decide to recreate elsewhere due to noise and disruption of wildlife depends not only on the noise level but also on the individual tolerance level and the availability of substitute recreational sites." All we residents can do as things stand is move out of town! Those affected are hoping for some relief in the form of fewer authorized landings.

In addition to previous comments on all Alternatives:

Alternative A: "On the other hand, Forest Service restrictions on helicopter landing tour flight parameters, which have allowed wildlife to adapt to the helicopter activities in the region, would not apply to this alternative." If wildlife had to adapt, does this indicate the noise has been more disturbing to wildlife than has been reported? "Therefore the possibility exists that there would be lower flying helicopters that would in turn be more disruptive to wildlife and recreationists on the ground." Aren't there other regulations, such as from USFWS, prohibiting helos from approaching wildlife too closely (page 3-12)? "Based on historical use figures and the increasing demand for access" much of which is generated by advertising, like any advertising, it increases demand.

Alternative E: "For both helicopter tour passengers and on-the-ground recreationists, this alternative is most like the current situation." Not really...more landings would be allowed. Dividing the current levels by a smaller number of days will probably have little effect on the tour passengers. Usually there are several days the helos can't fly due to weather, taking away Sundays and holidays would just guarantee when one day per week would be a no-fly day, instead of the surprise no-fly days we get due to weather. More flights are more flights...the numbers for Alternative E are 14% above the current levels of landings. "This change would cause some recreationists on the ground to go elsewhere seeking natural quiet." Where should they go? These are already some of the more remote locations where the snow machines want to go. All trails are impacted by flightseeing noise and this would just bring it closer and add noise from the snow machines to these somewhat quieter locations.

Alternative F (and applies to G): "With the allowance of more landings, more recreationists arriving by cruise ship would have the opportunity to participate in an icefield landing and associated activities." Consideration should be given to the rest of us in CBJ on any given day, tourists and residents alike. Even Disneyland limits the number of visitors allowed per day. Many recreational opportunities across the country have limits—only so much can be allowed in an area or severe overcrowding/pollution (including noise pollution) will occur.

Environmental Consequences for Wildlife Physiology and Behavior Impacts

The effects on wildlife by helicopters can be serious. I am not trying to downplay those effects at all, but please review this section of the DEIS and think about *Homo sapiens* as you read it. We are animals, too, and

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have no more control over the helicopter noise than the wild animals do: it was foisted upon us as well. Aircraft overflights can affect the physiology and behavior of wildlife, and if the stress becomes chronic, can negatively affect an animal's fitness and long-term survival (NFS, 1994). Both sound and visual stimuli can cause stress." I feel the same way and so do many other residents.

"Forested habitat generally reduces noise and visual stimuli because trees provide cover and muffle sound," but not in the case of helicopters in particular because the low frequency sounds they put out are not well muffled by anything, including house walls (per Paul Dunholter). "Helicopter overflights are more stressful than fixed-wing overflights." I suspect this is due to not only the low frequency sounds, but also the slower ground-speed of the helos. "Escape flight is the most common response" and "Flight avoidance or abandonment has been documented in response to overflights..." for people too. "Long-term disturbances may lead to acute or chronic reduction in foraging efficiency" like gardening and berry-picking. "Foster and Ralls (1983) analyzed mountain goat response to hydroelectric exploration activities and found that a buffer zone of a 1.2-mile (2,000-meter) radius was required to prevent an overt response to human activity." That seems like a better idea for the mountain goats than what we have now and seems better for the humans, too. "Habituation appears to develop most readily when the degree of disturbance is mild," but the disturbance from the helos is not mild and I will never become habituated at the noise levels we have now.

Goats near the Juneau Icefield.....do we know whether the goat population has truly habituated or have the sensitive individuals died or moved out as the humans are doing? Maybe they are like the recreationists who are supposed to go elsewhere, wherever that is, to find quiet.

Page 4-23 Alternative D: "This alternative would maintain the current number of overflights and landings." Please insert the word "authorized" after the word "current," as opposed to actual use.

Page 4-24 Alternative F (same statement in G): "Though the increased number of flights compared to the Proposed Action has greater potential to increase stress on goats, the negative impact would be difficult to quantify. This alternative would have negligible effects on mountain goats." These sentences contradict each other and the effects need more study!

Cumulative Effects

Support Flights for Commercial Helicopter Landing Tours and Activities

"An estimated additional 200 support flights and landings are used to support the current icefield helicopter commercial tour activities." If this number is accurate, that is an additional 400 overflights. However, I have been told that personnel are ferried up to and back from some of the landing sites on a daily basis. These flights are in addition to the flights with tourists. This number does not seem large enough to account for those additional flights. ALSO, the number of support flights should be calculated for each alternative. The added growth in trekking tours will greatly increase this number of support flights which translates into ever increasing amounts of noise!

Re: effects on fixed-wing flightseeing.....last summer I overheard a fixed-wing company employee complain that the large number of helicopter flightseeing tours was cutting into their business significantly, and causing them a loss in revenue for at least that summer and the previous one.

Chapter 5 (inserting here because it flows better....)

Glossary

Landing—there are sometimes TWO round trip flights per landing...it is not a one-to-one ratio.

Social Encounter—when a helo flies nearby, it is "within sight and sound." It takes so much time to be gone from sight and sound that it should be counted as a social encounter!

SEL—The word "short" should be removed from the definition...the noise from small planes is of short duration, but helicopter flights which last from 90 seconds for one helo to 4 1/2 minutes for a flock of 5 are not flying by in a short time period.

Figure A-1 could be updated with 2000 and perhaps 2001 data.

Appendix B REC 122 III. A. 3. Perhaps the very expensive flightseeing tours are being over-marketed, particularly in the video at Mendenhall Glacier Visitors Center which I watched this summer with my in-laws when they came to visit. Much time is spent on enticing folks to visit the glacier up-close and personal, including the closing remarks by Dr. Maynard Miller. Maybe less expensive, quieter, recreational opportunities should also be emphasized in the video.

VII.B. "Identify those recreation uses that may be in conflict with each other. Reduce recreation user conflicts and polarization. Work with affected publics in finding solutions to defuse or resolve conflicts or concerns." It is my sincere hope that this major conflict in our community over the noise generated by flightseeing operations can be resolved. So far the trail users and residents have not had their noise problem resolved.

Irreversible and Irrecoverable Commitment of Resources

"Irrecoverable commitments represent the loss of production, harvest, or use of renewable resources."

Unless the noise levels are reduced by a substantial decrease in permitted flightseeing landings, the personal enjoyment I am entitled to from my property both inside and outside, which I discussed in detail earlier, will continue to be irretrievably committed for about 1/2 of every year—the gardening half! Also the natural quiet and solitude, resources which one rightly expects to have on the many trails in CBI, will continue to be irretrievably committed.

In summary, Mr. Griffin, I urge you to permit helicopter landing tours on the Juneau icefield at the 1994 actual use level without any new locations or uses. Please choose Alternative B, or a modification of it, and adopt a compromise that the citizens of Juneau can live with.

Sincerely,

Becky Carls
(A.K.A. M. Miller) (M. Miller)

Becky Carls

N.B.: The references sometimes quoted in this letter of response as part of quotes from the DEIS are not further annotated as they are already fully listed in the DEIS itself.

BCas
COMMENT FORM
Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name Bob Casey
Address 9323 Stephen Richards Dr.
City, State, Zip Juneau, AK 99801
e-mail address _____

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☒ Yes ☐ No

Comments Category

My comments relate to (check any that apply):

- ☐ The EIS Process
- ☐ The Alternatives
 - ☐ Alternative A
 - ☐ Alternative B
 - ☐ Alternative C
 - ☐ Alternative D
 - ☐ Alternative E
 - ☐ Alternative F
 - ☐ Alternative G
- ☐ Significant Issues
- ☐ Noise Impacts to Residents
- ☐ Noise Impacts to Recreationists
- ☐ Impacts to Wildlife
- ☐ Impacts in New Areas
- ☐ Economic Uses

My Comments

Juneau airport is an airport! Juneau is a capital city not a wilderness. If you can't be a good neighbor and tolerate the helicopters for 4 months, then you can't move to Alaska! Move the helicopter out and you'll have all the peace & quiet you can take, because the squawks will be gone!

Over.....

"Bryan J. Hochgesang"
<bhoche@pscl.net>
08/21/01 05:05 PM

To: <ehall@fwenc.com>
cc:
Subject: Juneau Icefield

BH 1 I recently went on a helicopter tour of a glacier near Juneau and I thought it was great. Other people should have the chance to do the same. Please do not decrease helicopter landings on the glacier.

Thank You
Bryan Hochgesang
2028 W Skyview Dr.
Jasper IN 47546

BJB

REC'D SEP 26 2001

Bruce & Judy Bowler
 <cozylog@alaska.net>
 To: ehall@twarc.com
 cc:
 Subject: DEIS Comment

09/25/01 12:40 PM



658-11 We support Alternative F.
 There is so much more to Juneau than T-shirt shops. We think the idea of having "no-fly" days, as proposed in alternatives "B" and "C" is without merit. Restricting private businesses who serve tourism to an artificial Monday through Friday schedule is unfair to people who visit Juneau on weekends and to the companies who serve them.
 There is also talk about shortening the days by a few hours. This would severely limit a businesses' ability to reschedule visitors from mornings to afternoons due to Juneau's constantly changing weather. With the potential of new heliports being sited away from those who complain, we see no reason to restrict flights. Restricting Flight-sealing would send a clear message to those who are handicapped, age-restricted or physically-challenged that Alaska doesn't care about them. We host many visitors each year who would never have an opportunity to see this beautiful country without the services provided by low impact commercial flight-sealing companies. Everyone who has experienced these flights has come back with glowing reports, without exception.
 Additionally, the search-and-rescue and efficient business support services provided by commercial helicopters is directly proportional to the number of pilots and aircraft available. If the Forest Service forces a reduction in their personnel and flight hours, their abilities to provide immediate life-saving services will be reduced.

Bruce and Judy Bowler
 A Cozy Log Bed and Breakfast
 PO Box 32717
 Juneau, Alaska 99803

BUS

RECEIVED

bill@alaska.net
 To: ehall@twarc.com
 cc:
 Subject: Helicopter Landings

09/17/01 08:38 PM



Dear Ms. Hall,

My preferred option is for helicopter icefield landings is:
 Alternative B-Reduce Icefield Landings to 1994 Actual Use Level
 Respectfully,
 Billie Jo Secrist

August 26, 2001

Peter Griffin, District Ranger,
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041

Dear Pete,

I have read through the draft EIS on the Helicopter Landing Tours on the Juneau Icefield 2002-2006 and find it flawed in a number of instances. I will address some of these in the following paragraphs. I wish to begin by expressing the obvious. There is a noise problem with the helicopter flight seeing tours. No matter how you coat it there still is a problem. The only ways to take care of this problem is to contain, or limit, or eliminate the helicopter traffic. To contain it would be to find a place from where all of the helicopters can fly to the ice field without flying over residential areas and popular hiking trails. This would seem quite a task. To put a limit back to 1994 landings would be a big step towards limiting the noise.

Nowhere in the draft EIS did I find any figures to show when and how many helicopters resorted to alternative routes because of not ideal weather. Since much of our summer weather can be designated as not ideal weather, many of the flights are on alternative routes which means right over town and other inhabited areas. This further increases the noise factor as it is most noisy when the cloud cover is there for the sound to bounce off of. I would favor reducing the number of flights on these days and giving the people who would rather not be flying on "marginal" days their money back. Just because they were pressured to buy helicopter flights as the boat left Vancouver, in the sun, doesn't mean that they should be held hostage to take the flight or loose the money just because a helicopter company chooses to fly in marginal or worse weather.

I can see the need for a few alternative landing sites to take into consideration local conditions on landing sites but there is no reason to have them all over the icefield. The vast majority of people taking these flights are doing so just once. There is no need for landing sites all over the icefield to give them the opportunity to experience standing on a glacier.

I don't understand why Douglas Island was excluded from the draft EIS. It seems that with a helicopter company based on Douglas Island and flight paths going over the island it would seem reasonable to have Douglas Island included in the draft EIS.

Additionally the near shore islands all along the coast line from Auke Bay to Berners Bay, including Benjamin Island, a major sea lion rookery, should be included in the EIS. Those areas should also be included in the EIS

B7H
1

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2

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BLH

RECEIVED

AUG 29 2001

Juneau Ranger
District

Helicopter Landing Tours Draft EIS response from Betty Lou Hart page 2

B7H
6

I would recommend the number of landings be rolled back to the actual number of landings made in 1994, I recommend no new landing sites, that includes no to the Antler Lake, Antler Glacier proposal.

B7H
7

I understand that even the cruise ship tourists are complaining about the helicopter noise as they visit the area. It is time to roll back the noise level in Juneau.

Regards,

Betty Lou Hart

Betty Lou Hart
P O Box 21890
Juneau, AK 99802
blhart@gci.net

BN
REC'D SEP 25 2001
COMMENT FORM
Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name Brian C. Nelson
Address 205 E. Duane Blvd., M8 122
City, State, Zip Anchorage, AK 99515
e-mail address bnelson@htmail.com

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☐
Alternative G ☒
Significant Issues ☐
Noise Impacts to Residents ☐
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☐
Impacts in New Areas ☐
Economic Uses ☐

My Comments

I am a fan with EIS helicopter and support alternative G listed in the draft environmental impact statement. In my experience, I have not found any impacts to the glacier at a level of our landing and leaving tours to walk on the ice. But I am a citizen and would like to see an individual that communicates to the public regarding impacts to the environment of using the area that we visit. The way we found them.

An evaluation is needed in general and tourism is needed in Alaska. The number of people over...

My Comments

BN
2
(cont.)
USING THE ORIGINAL FORM WILL DEFINITELY INCREASE THE USE OF HELICOPTERS TO ALLOW PEOPLE TO EXPERIENCE THE GLACIER. A SAFE AND EFFICIENT METHOD FOR PEOPLE TO CLIMB.

Brian C. Nelson

CA

RECEIVED
10-1-01

Helicopter Landing Tours on the Juneau Icefield 2002-2006
DEIS

Draft Citizens' Alternative - presented to the CBJ 8/20/01

Number of landings: 11,381 (1994 actual use level)
 Hour landings can occur: 8:30am-6:00pm
 Days per week landings can occur: Sunday - Friday (6)
 Days per season landings are allowed: 128
 Maximum number of landings per day: 93
 Landing locations: Same as now, no new areas
 Flight paths: designated "good" and "poor" weather routes for each company, if these routes are not flyable at minimum altitudes required, flights are cancelled for that period of time until routes are safely flyable at minimum specified altitudes.
 Other items: same as alternative B

Key features explained: One purpose of a limited permit system is to ensure the quality of an experience and minimize impacts. The maximum number of landings per day would ensure a maximum amount of noise associated with landing tours each day. Like Peck Creek and other areas with limited permits, if you are not able to visit on the day of the permit, it is lost. The 93 landings per day was determined by dividing the 1994 actual use by the 128 landing days authorized.

The designated flight paths will give some predictability to locals on where to expect to find what aircraft on what type of day. With each operator having designated flight paths it will eliminate operators searching for routes on less than optimal days and increase safety for clients. On days when helicopters are daring in and out of clouds while flying up the channel one might also expect that some of the passengers would rather have had their money back than fly. In fact, the 1999 McDowell survey for helicopter operators found that clients were much more satisfied with their experiences on sunny days than rainy.

By having a maximum number of flights per day, helicopter operators could lease or otherwise secure just the number of aircraft required to serve that known peak number. This would mean less aircraft standing by on slow days and less pressure to keep building numbers.

There is no ramp down time with this alternative because citizens have been asking for noise reductions from the operators (and help in securing from the CBJ) for years. Noise relief is needed NOW. Many of the aircraft used by operators are leased rather than owned so cutting back fleet sizes should not be a big hardship. Further, the two largest companies have operations elsewhere that might absorb some of their aircraft. Employees are largely seasonal -- a cut-back might simply give passengers a better chance of having a more experienced pilot, mechanic, glacier guide, etc.

Karla Hart, PO Box 22425, Juneau, AK 99802

CB

RECEIVED
10-1-01

September 29, 2001

Pete Griffin, District Ranger
 Juneau Ranger District
 Tongass National Forest
 8465 Old Dairy Road
 Juneau, AK 99801-8041 pgriffin@fs.fed.us

Ellen Hall
 Foster Wheeler Environmental Corporation
 12100 NE 195th Street, Suite 200
 Bothell, WA 98011 ehall@fwenc.com

Re: Helicopter Landing Tours on the Juneau Icefield 2002-2006

I find that this document is so incomplete that I cannot see that the Forest Service can grant any permits or extensions of permits with so much data pertaining to the decision lacking.

There is no socio-impact analysis. Why is this requirement applied to such companies as Echo Bay and Coeur Alaska in their attempt to permit mines, and yet is totally waived for tour companies? Why is there a double standard? I believe that there are great socio-economic impacts on the community from the continued existence and growth of the flightseeing industry.

Negative socio-economic impacts which are virtually ignored in this document:

- Loss of income for other types of tour operators because they cannot provide wilderness-like experiences on hikes, kayak trips, or bicycle trips due to the Sea-Tac levels of noise from Forest Service supported flightseeing tours. These operators may be more likely to hire locally, so money earned may be more likely to stay in Juneau. The helicopter companies hire many out-of-town workers, such as most of their pilots, who take much of their income when they leave for the winter.
- Loss of business to Bed and Breakfast businesses and other businesses that rely on independent travelers. The bad publicity from articles mentioning the noise levels in Juneau in such as the articles in the New York Times, USA Today, and Smithsonian, to name a few, are reducing the numbers of independent travelers. I have also met travel agents who advise their clients not to go to Juneau and previous visitors who advise their friends not to come here due to the noise levels and lack of wilderness type experience that would otherwise be available and for which people come to Alaska to experience.
- Loss of property values. The report claims that although in some places, such as L.A. people pay a premium for quiet neighborhoods, that this is not a factor in Juneau, primarily because there is noise everywhere.

However, this is a gross simplification. I believe that property values of rural neighborhood houses have been diminished by the noise, because the noise negates the advantages that rural neighborhoods have, namely quiet. I have heard many stories of people trying to sell their houses and having buyers say that they didn't want to buy in such and such neighborhood, because the aircraft noise was too great. I have also heard of real estate agents advising their clients in neighborhoods most impacted by helicopters to not try to sell their houses during the flightseeing season. Loss of family time. I have found that I am less likely to play with my children outside or read them books, even inside, during the flightseeing season due to the constant interruptions from the flightseeing noise. Loss of use of private property. This is especially an issue for those who work at home. I have noticed that a significant portion of those people who are most opposed to increases in helicopter traffic are those who work at home. People who work in large office buildings are more protected from the noise than people who work in their homes. Both my husband and I run a consulting business in our home, and many, many times had to cut short conversations with clients because we could not hear them talk over the phone when the helicopters flew by. In our case, the loss of use of personal property has become so extreme that we see no alternative except to sell our house. The noise has forced us out of our home for the bulk of the flightseeing season for every summer since 1995 when the flightseeing levels increased above what was bearable. Now that the flightseeing season has been extended extensively into the school year, we no longer have the option of just migrating out of town, unless we are willing to have our son miss 2 months of school a year. This is unacceptable, so our house must be sold and we must leave Juneau. We love Juneau and have no desire to leave, but it has become clear in the last year that the only way for residents to escape the Sea-Tac level noise in Juneau from flightseeing condoned by the Forest Service is to leave town. With the proposed action, there will not even be the option for people to live way out the road. There will quite literally be nowhere in all of Juneau that is not underneath the flight path of Forest Service condoned flightseeing. The cost to our family, both emotionally, and financially from lost billable hours and real estate transaction fees and moving costs are tremendous. As there is no other reason for us to leave Juneau, these costs should be attributed to negative economic costs of flightseeing. There is also a likely negative cost to the city from continued and growing helicopter flightseeing. These tours do not pay sales tax and do not pay full value property tax on their business equipment, like other tour operators and other businesses. Having these businesses displace other tour operations could very well result in reduced income for the city government.

CB 8 | All of these costs should have been included in a socio-economic impact analysis. Instead the document estimates the income (very roughly) generated by the helicopter

tours and calls the revenue staying in town "substantial" (pg 3-1), with no evidence and despite the fact that a large portion of the income leaves town in the fall with the migrant workers and as income to companies based out of town. I find the lack of data and biased statements to be completely irresponsible. Especially, since apparently the primary reason the Forest Service is granting the permits, despite the impacts on wildlife and residents, is based on economics.

There is also very poor information on the impacts on other recreationists.

The estimates on the numbers of people using trails are unsubstantiated and appears to be seriously underestimated. There is also no estimate or even conjecture on the number of people who are dissuaded from hiking on Forest Service and other trails due to the noise (I am one of the people who does not hike in the Juneau Borough after helicopter season starts due to the noise - I migrate to the Haines Borough where we can hike in an environment without constant helicopter noise.) There is a graph showing data that show that average recreationist would be annoyed by the documented noise levels. The text says that this is probably a conservative number. The data were gathered elsewhere. Why hasn't the Forest Service completed a local survey to collect this data?

There is also very little data on the impacts on wildlife.

I have noticed that flocks of birds are affected and I am sure that large mammals are affected. I also notice many more eagles prior to and after the heavy helicopter traffic begins. There are many studies showing that the health of people are compromised by chronic noise so it is ridiculous to assume that bears and other mammals are not bothered by noise. The report seems to imply that since we have no data, we can't really worry about this aspect. I personally wonder if one of the reasons Juneau has such a large bear problem is that bears have become acclimated to "people noise" due to prevalent helicopter noise in the backcountry. Since they were not overtly injured by the noise, they became less intimidated by people noise and began to move into town for a quick meal. I have worked as a field geologist in the bush of Alaska for 10 years. I have noticed that noise and a clean camp are the best deterrents to bears in camp. Here, the bears have gotten used to pervasive noise from helicopters, so noise in the city is no longer a deterrent.

Also, there is no mention that with the proposed action there will not be coast line from the north end of Berner's Bay to the south side of Taku Inlet where wildlife can reach saltwater without being under a major flight path.

There is also very little information on the cumulative effects of noise from flightseeing. There is a passing discussion of some of other tours, but no analysis on changes in other traffic over the permit length, nor is there any quantification of the numbers of flights in different areas. Again, why is this type of analysis required of mining companies and not tour operators? Why are you applying a double standard? If it is because you deem flightseeing more politically correct than mining companies, this is not acceptable.

I also found the document to be very biased in its presentation of the data.

An example of this is the discussions of loss of income and jobs if permits are not granted. There is no discussion or quantification of jobs gained and income gained when tourists choose to go on other tours or spend more time in local businesses if flightseeing is curtailed. Almost all other businesses pay a sales tax and pay full value property tax, unlike the helicopter companies, so there could actually be a net gain of money into the local businesses and local government if the permits were denied or permitting levels dropped.

Also, the statistics on the numbers of flights are very misleading. The season of flights may be longer, but anyone who has been in Juneau knows that the weather is not appropriate for flights every one of those days. The tour companies have been flying from about May 1 to about Sept 30 for a couple of years, so it appears that you are intentionally trying to mislead the public by comparing past flights by dividing by a shorter season, and future flights into a longer season (which really does not have that many more real flying days due to poor weather in the shoulder season). Furthermore, since most days are not average days, the comparison should be on high use days and low use days, not just on the "average day".

There is repeated mention of the high popularity of the helicopter tours based on a survey conducted by cruise industry (which makes a tremendous profit (untaxed, no capital expense). Why isn't there a survey asking other users if they are annoyed or disturbed by the helicopter activity? The Forest Service should have undertaken to collect this data so that they could present unbiased data set. Instead, they choose to discuss at length the survey provided by the cruise ships, and mention in passing that other tour clients might be annoyed. There have been surveys conducted by other organizations, and at the very least this data should have been included. I also could find no mention of the citizen's initiative limiting helicopters that collected over 2000 signatures and which received 30% of the votes in the election in Oct 2000 (there is no mention of this in index either). This initiative shows, that although the majority of the people did not choose this solution, that there is a significant portion of the residents who are bothered by the noise. Unfortunately, this document prefers to quantify only data that supports its preferred alternative- that which allows an increase in the actual number of flights and expands the range of flight paths.

I am very disturbed by that even given the data that is provided, and even in its biased presentation, that the Forest Service can say that they prefer Alternative B.

On page 4-2 a graph comparing noise levels to percentage of visitors annoyed indicates that 55-65% of visitors would be annoyed by the noise levels that were measured on the trails during the noise study. You state that curve on the graph is a conservative estimate of the people annoyed. This data was gathered in National Parks. If anything, I would guess that most American expect Alaska to be wilder and quieter than the average

national parks (this is why people spend so much money to come to Alaska to visit!!!) and that the data in the graph is VERY conservative.

You give no accurate data on the number of trail users (pg 3-3) however your own estimates, indicate that over 30,000 times the trails are used (many trails are not listed on this list, such as the trails on Douglas Island, (which was inexplicably deleted from the EIS study area, despite flight paths over or immediately adjacent to high use Forest Service land), there are also numerous visitors to the glacier (over 200,000 visitors to visitor center according to the DEIS, and other sites within the Forest Service area of influence. This leads to a significant number of times that users of Forest Service land in the borough are potentially annoyed by the noise from the helicopter tours. There is even one complaint in the 1995 Final EIS where one helicopter tour operator is complaining that the noise from the helicopters of another tour operator!!! It is even possible, although the lack of data in this document makes it impossible to know for sure, if more people are annoyed by the noise than the number of people who take the tours. I wonder if there are tours anywhere else on Forest Service land in the country, where the Forest Service chooses to support a tour activity that negatively affects every other type of recreational use of Forest Service land, and all for only \$2.50 per client!!!

On page 1-9 in the discussion of purpose and need, it is states that the goal is to meet public demand, and that "Meeting this demand includes providing for visitor safety and an appropriate balance between commercial, nonguided recreational opportunities while minimizing impacts to people and resources." If this is the goal, then the proposed action does nothing to accomplish this stated goal. First of all, it is clear that the "public demand" is very artificial. If there were a real public demand, then residents and independent travelers would use this mode of seeing the glaciers. The DEIS states that less than 1% of independent travelers and virtually 0% of the residents go on helicopter flightseeing. The "demand" is caused by heavy marketing by cruise companies who make approximately 6 million (according to the DEIS, but only a rough estimate), in non taxed income on these tours, just in commission, with no costs for helicopters, pilots, fuel, insurance, or other equipment. It is hard to imagine that any other businesses, especially non U.S. companies, make this much profit from use of Forest Service land, with virtually no business costs (other than marketing). These companies have a very large incentive for creating an artificial demand for these tours. I contend that the real demand for helicopter landing tours is really very small.

Secondly, this purpose and need statement says that there are provisions for visitor safety. The Forest Service could make conditions, which would make the visitor's safety more assured, but has not done so (such as only allowing landings when visibility on flight path allows flights at 1500' elevation). Instead, the Forest Service has granted alternative landing sites and flight paths for when the weather is so bad that normal flight paths cannot be obtained. This allows the helicopter companies to fly in weather that most residents, who are more fully aware of the dangers, would only fly at great duress. I have actually seen helicopters take off for these tours in such heavy rain and high wind, that I didn't feel safe driving on Egan drive, and even contemplated pulling my car over for a while. Furthermore, the practice of flying in virtually all weather compromises the safety

of residents. Much of the flight paths are over homes and heavily populated areas and even schools. Over these areas they often fly at minimum elevations. There was a fatal mid-air crash almost over my neighborhood a few years ago involving a helicopter tour and an FAA airplane. With the number of flights, and the spaghetti like trace of intersecting flight paths over residential areas, it is only a matter of time until a helicopter crashes into a home or school or business. The proposed action does not provide for visitor or even resident safety!! As we have seen by recent events, aircraft can pose a significant safety threat to people on the ground.

The above statement also claims that the proposed action finds an appropriate balance between types of recreational users. This is so false, that it is laughable. The proposed action allows helicopter flights and landings virtually every waking hour of small children, virtually every day of the summer, on virtually every trail accessible to the average user for 40 miles of road system. The only concession that the proposed action makes for other recreational users are that they can recreate before 8:30am or after 8pm and on three holidays between May 1 and Sept 30th. Most hikers cannot complete their chosen round-trip hike after the hours of 8pm till dark. The document shows that most users will be annoyed by the noise from helicopters and has disturbed people doing every other type of recreational activity on the Forest Service Land. There are a few very small places of no fly zones, but no one could say that this is a balance, especially since the number of other users is higher than the number of helicopter passengers. A balance would allow hikers to hike unharassed for at least half the day, not just between 8pm and dark or for half the days or more. The current plan favors rich tourists and the foreign owned cruise ships that are the primary beneficiaries of these permits.

In short, the proposed action does not satisfy any of the goals that are stated. The apparent need is artificial. There is not even evidence that there is a need for increased flights to meet this artificial need since the number of flights has not increased in 2 years, despite an increase of ship passengers. So why is the Forest Service granting extended flight paths and landing areas, and increases in the actual numbers of flights? There are no provisions to ensure safety of the passengers, and the permit regulations actually support flights in unstable marginal weather by allowing landings in areas by designating additional landing sites for use in bad weather. There is no attempt to reduce the impact on the citizens or animals or wildlife. The "fly-neighboring" practices have not worked as is evident by the still large numbers of people whom are annoyed and impacted by noise.

I am also extremely disturbed by the proposed action to extend the range of flightseeing up into the Berner's Bay Area.

Currently this is the only area reachable by road where people can go to escape the flightseeing noise. Endangered and protected species would be affected since the mandated wildlife buffers will admittedly be violated by the flight paths. For example, flights are supposed to stay 3000 feet from sea lion rookery on Benjamin Island, but the proposed flight path is directly over the island. Also, the extension of the flight paths for these tours would increase the number of eagle nests directly under the flight path to what

appears to be approximately half the eagle nests in the DEIS area. My personal experience makes it hard for me to believe that the flights stay 1/4 mile away from active nests (as required), since I have seen flights fly the coastline, over the nests at 500 foot minimum elevation. I found the description on the impacts on trumpeter swans to be very sketchy, but the DEIS does suggest that they are under the flight paths and are easily disturbed when nesting (April to September). It also mentions that the Queen Charlotte goshawk lives in this environment, but discusses them no further since supposedly, their habitat is generally not near flight paths (the document does not locate their habitat). Since in inclement weather flight paths become very erratic, shouldn't the habitat of the goshawk, as an endangered or threatened species be documented, with proscribed no fly zones around known nesting spots? On several of the alternatives, a 0.5 mile buffer zone is proscribed for new areas, except for the Antler Lake flight path, which would take flights daily within this buffer.

It appears that the Forest Service is willing to do anything to allow the helicopter operators to expand into the Berner's Bay Area, even violate their own guidelines. This area is currently the only area where recreationists can kayak or hike or boat and not be beneath a flightseeing flight path. Clearly, the Forest Service has no intention of trying to restrict helicopter activity to protect wildlife or to allow a balanced use of Forest Service Land, despite their stated goals to this effect. In the introduction, of the DEIS, it clearly states that this proposed action does not meet required wildlife buffers in this area, but that activity is going to be approved anyways. Why is this? There is no reason given as to why the operators need an even larger area. They already fly or fly over most of the nearby ice field, there is not even any demonstrated demand.

Other questions and noted inconsistencies:

- Why are Douglas Island and Benjamin Island left out of the EIS boundaries??? Both contain Forest Service lands and both will be heavily impacted by the proposed action. One of the heliports is on Douglas Island. The only reason I could find for this boundary that excludes these two critical areas is that the boundary was chosen to be the same as the last EIS. This is hardly an acceptable reason, especially since both areas are heavily impacted. Both areas should be included in the EIS and usage of trails on Douglas Island should be added into the totals.

- On page 3-9 the activities of the ice field research station are described because "any impacts to these users would be similar to impacts on other recreationists". So why does the Forest Service admit that they are impacted and place a no-fly buffer zone around the camps, and yet deny such buffer zones to virtually every other recreationist and totally dismiss the impacts on every other type of user?? The inconsistencies in this document are almost too outrageous to be believable.

I support the alternative A, or since I know that the Forest Service will not even consider this as an option, alternative B.

This is the only option that provides any relief from the noise to residents and wildlife and other recreationists. The relief provided by this alternative is dismissed by the DEIS, but the authors failed to realize that many small children are in bed at 8pm (pseudo-curfew for all other alternatives) or soon thereafter and they cannot conduct all their outdoor recreation after 8pm. This alternative at least allows children to play outside after 8pm, without having to listen to constant helicopter noise. It also allows them to recreate on weekends free of flightseeing noise. I believe that allowing young children to experience the wilderness or even just quiet outdoor experiences is one of the most valuable learning experiences children can have. The proposed action makes it virtually impossible to live in Juneau and allow your children any type of wilderness experience without getting on a boat or plane. Most families with small children do not have the high rate of disposable income that the mostly elderly helicopter flight clients do. Also I support the reduced number of helicopter landings. I noticed that 1995, when landings started to increase, that the noise impact on my family became unbearable.

Conclusion

I support alternative B. There should be no increase in the number of flight landings nor should new areas be impacted until the Forest Service can demonstrate that the impacts on wildlife and residents be negligible. This DEIS is lacking much vital information and presents the data in a blatantly biased manner. A final EIS should not be published until these weaknesses in the DEIS have been fixed and the public has had a chance to comment on the landings based on complete analysis of the proposed action. Furthermore, the landings should be cut back to 1994 levels until these problems are remedied. Clearly, the Forest Service, which has allowed two seasons of flights without an EIS permit, has no incentive to conduct the appropriate studies, unless, their clients, the helicopter companies, are forced to cut back on their flights.

Cindy Buxton
5775 Thane Road
Juneau Alaska 99802

Cindy Buxton

pg

C Chastain

<cecju@alaska.net>

09/24/01 04:06 PM

To: ehall@wnc.com

cc: ppgriffin@fs.fed.us

Subject: Helicopter landing tours, Juneau Icefield, 2001-2006



Attn: Ellen Hall, Foster Wheeler Environmental Corporation
cc: Peter Griffin, District Ranger, Tongass National Forest
Subject: Helicopter landing tours, Juneau Icefield, 2001-2006

I have a few questions regarding the Proposed Action and the Purpose and Need, as described in the subject DEIS.

As I understand from reading these two sections, the Proposed Action is to authorize commercial helicopter landing tours on the Juneau Icefield, and the Purpose and Need is to meet public demand for helicopter access to remote locations on the Juneau Icefield.

Would you please explain to me why competing public demand for quality outdoor experience free of chopper noise pollution is of not a concern of this DEIS. For example, is the proposed increase in chopper noise pollution compatible with the Mendenhall Recreation Area Plan?

Tourists and residents alike come to Alaska primarily to experience their concept of unspoiled wilderness and to experience life in the so-called last frontier. How will increasing the frequency of chopper overflights and landings affect attainment of their objectives?

Access to remote icefield locations is presently available to willing buyers. To what extent do marketing efforts by tour companies create and foster "demand"? Is it possible that "public demand" in fact refers to the demand of tour operators for expanded opportunities to enhance their bottom line? If this is in fact the case, then it would be more forthright to address this particular public demand with respect to the entire spectrum of other public "demands" relevant to the National Forest area under consideration.

As I live, work and play directly under the proposed chopper flight paths, and find the current level of overflights degrades the quality of experience in all three of these life activities, I prefer Alternative B, reduction of authorized flights to the 1994 actual use level.

Thank you for this opportunity to comment on the proposed action.

Sincerely yours,

Charlette Chastain
Box 230031
14017 Glacier Highway
Wuke Bay, AK 99821

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RECEIVED
09/24/01

CCU

Luckycuster@aol.com

To: ehall@fwenc.com

cc:

Subject: Flightseeing DEIS Alternatives



CCU 1 I am writing in support of alternative "F" as described in the July 27th DEIS.

Thank you,
Christopher Custer
4850 Glacier Hwy. B-3
Juneau, AK 99801

CDB

RECEIVED
08/29/01

"C Dale Boushley"

<dalebcp@uwast.net>

cc:

To: <ehall@fwenc.com>

Subject: Helicopter landings on Alaskan Glaciers

08/29/01 08:34 AM
MST



To Whom it May Concern:

Please be advised that I and my wife recently had the opportunity to visit Alaska. During that trip we took a helicopter tour of Juneau which included a glacial landing. We found the experience delightful and informative.

CDB 1

We believe that the pilot went out of his way to protect us and the glacier, explaining safe walking techniques and staying close to us while on the glacier.

We believe that it would be sad to have missed this experience and that it would not be in the public's best interest to limit these type of excursions. The natural beauties that we were able to experience could not have been had we not used a helicopter. Very few people could make the climb into these remote areas.

CDB 2

What is the purpose of protecting beauty if in so doing we make it impossible for anyone, or perhaps only a select few, to enjoy. Some believe that we must protect these wonders for future generations. But I ask, if we preserve a natural wonder but prohibit anyone from seeing it, except through photograph, then what have we preserved it for? A photograph taken 50 years ago or last week is the same experience if a photo is all you will get.

Please allow all the world to come and experience these wonders of nature.

C. Dale Boushley



- C Dale Boushley, CFP, EA, vof



"Kondzela"
<kondzela@jgd.net>
10/02/01 10:36 AM

To: "Ellen Hall" <ehall@fwno.com>
cc:
Subject: DEIS helicopter comments

CK

RECEIVED
10-1-01

Dear Ms. Hall,

Please consider the following comments in response to the U.S. Forest Service DEIS for helicopter landing tours on the Juneau Icefield 2002-2006:

I have noted a significant increase in helicopter traffic over my residence in the last couple of years. I live at approximately mile 18 Glacier Highway at the base of a steep hill by Tee Harbor, just north of Auke Mountain, which is many miles from the airport and the northern helicopter landing sites, e.g. Herbert Glacier. The voluntary flight paths to access the northern sites as shown on maps in the DEIS and in the May 2001 Friends of Aviation newsletter have frequently been violated in both good and bad weather, resulting in many flights directly over my house during the May - September period. This negatively affects our ability to communicate while outdoors, enjoy quiet time gardening, and has had significant impact on my ability to focus on writing during work hours at home. Given that the U.S. Forest Service has little or no control over flight paths, one of the few ways to reduce noise impacts to my residence appears to be a reduction of landings. As such, I support Alternative B, which still allows a substantial number of landings for a non-essential service and at the same time should provide some noise pollution relief both at my residence and in the general Juneau vicinity.

Christine Kondzela
P.O. Box 210931
Auke Bay, AK 99821

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RECEIVED
10-1-01

CMIM

August 6, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Re: DEIS - Helicopter Landing Tours on the Juneau Icefield - 2002-2006

Dear Ms. Hall:

We are writing to encourage support for the continuation of helicopter flightseeing tours on the Juneau Icefield. To that end, we recommend that the District Ranger select Alternative "T" in the DEIS. This alternative would provide continued access to the Juneau Icefield and allow a modest amount of growth for the Alaskan businesses that depend on access to these National Forest lands.

Several years ago while visiting Juneau we made a special point of taking a helicopter tour. We found it to be one of the most incredible excursions of our lives. Because we are well past the age when a hike to the top of the mountain is an option, this helicopter tour allowed us to see and touch centuries-old ice and enjoy an unequalled recreational experience. It should also be noted that the tour was conducted safely and with the maximum amount of concern for the environment.

Finally, as lifelong residents of California, we have always welcomed visitors to our own San Bernardino National Forest - 365 days a year. We would hope that those whose homes border the Tongass National Forest would always extend the same welcome to visitors - especially since helicopter tours can only be conducted 4-5 months per year and even then are subject to bad weather cancellations.

We appreciate the opportunity to comment on this DEIS and look forward to learning whether we can continue to recommend this activity to others.

Sincerely,

Charles and Mary N. Magistro
Charles and Mary N. Magistro
135 Camella Court
Upland, CA 91788

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RECEIVED
11/1/07

Cruise Control, Inc.

114 South Franklin, Suite #204
Juneau, Alaska 99801Voice: (907)-586-4958 / FAX: (907)-586-4959 / e-mail: mcgess@aol.com

September 22, 2001

VIA U.S. Mail and E-mail

Mr. Peter Griffin, District Ranger
Juneau Ranger District
USDA Forest Service (USFS)
Tongass National Forest
8465 Old Dairy Road
Juneau, Alaska 99801-8041
pgriffin@fs.fed.us

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011
ehall@fwenc.com

RE: Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

Dear Mr. Griffin and Ms. Hall:

We appreciate this opportunity to comment on the Helicopter Landing Tours on the Juneau Icefield 2002-2006, Draft Environmental Impact Statement ("DEIS"). For ease of reference, many of our comments conform to the format of the DEIS, although the comments made about a specific section may apply more globally within the context of the DEIS and are not limited to the specific section. However, the DEIS failed to consider certain material aspects of flightseeing which we address first.

ITEMS OMITTED FROM THE DEIS THAT MUST BE ADDRESSED

- The DEIS does not analyze or discuss the effect of flightseeing within the context of social encounters and visitor impacts, including the interrelation of economic, social, and natural or physical environmental effects on the human environment. A "social encounter" occurs when a USFS visitor comes within sight or sound of another USFS

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visitor. DEIS, Appendix B, B-13. Clearly the hikers, kayakers, and other USFS visitors on the ground encounter flightseeing sights and sounds.

The DEIS does not address the positive and negative socio-economic impacts of flightseeing as required by the USFS Handbook.

The USFS has a conflicting monetary interest in collecting fees in direct proportion to the number of "service days," i.e. more flights means more money collected by the USFS. The USFS should consider instead implementing a permit system akin to that used in Glacier Bay where the National Park Service (NPS) issues a questionnaire to cruise-line companies. Those companies who wish to operate within NPS boundaries must complete the application and permits are issued to the companies that most closely meet the environmental, aesthetic, and monetary needs of the NPS. The USFS should allocate limited flightseeing permits only to those flightseeing companies that avoid overflights of all residential areas.

There is no data provided, or discussion of the effect, on residential real property values that has or may result from the high level of noise associated with flightseeing over residential areas, although there is data provided showing that other communities have experienced a 13.2% increase in residential real property values for homes in quiet areas. Before any conclusions can be made about the economic value of flightseeing to the Juneau community, negative impacts, such as a decrease in or suppression of real property values, must be fully studied and analyzed. Such an analysis must include a discussion of the potential real property tax revenues that might be generated by an increase in property values in the absence of flightseeing noise.

The DEIS states a certain economic value of flightseeing to the Juneau community. However, the data upon which this representation is based is inconclusive in that it does not provide a comprehensive analysis that shows how much of the gross revenue generated in Juneau actually benefits the Juneau community. If the economic benefit of flightseeing to the community is to be used as a basis for the EIS in any respect, the USFS must provide comprehensive data that supports the conclusions made. Such data should include information on commissions or similar payments made to the cruise companies, agents, or operators that book these tours and the employee-base who works in this industry.

The DEIS does not contain a specific and comprehensive analysis of the substantial changes that mechanized uses bring to the natural environment and how these changes will irreversibly alter, or displace altogether, more traditional uses. As drafted, the DEIS posits an unspecified and, therefore, unclear policy position to

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Helicopter Landing Tours on the Juneau Icefield 2002-2006
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Cruise Control, Inc.

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Helicopter Landing Tours on the Juneau Icefield 2002-2006
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allow some level of any proposed mechanized use. The actual policy position needs to be clearly stated and supported. This is especially important in the case of flightseeing because local residents are not the majority users of flightseeing services, yet they suffer a tremendous, negative noise impact when those outside the community avail themselves of this activity.

ITEMS INCLUDED IN THE DEIS THAT REQUIRE ADDITIONAL INFORMATION AND/OR ANALYSIS

The main focus of our comments on the items included in the DEIS addresses the USFS recognized (Page 1-9) need to "minimize impacts to people" that result from helicopter and fixed-wing flightseeing tours.

Because the City and Borough of Juneau ("CBJ") has allowed industrial operations and residential uses to grow together, noisy, mechanized-Alaska experiences, like flightseeing, create a conflict between those who require relative quiet for their work and living environment and those who make their living with, or choose to recreate by means of, aircraft. None of the USFS proposed alternatives sufficiently address ways to mitigate this conflict.

The following bullets state specific problems with the DEIS or highlight areas where more analysis (and redrafting) and opportunity for comment is required before proceeding to the final environmental impact statement (EIS).

CHAPTER 1 - PURPOSE AND NEED

- The Proposed Action assumes that only existing heliport bases will be used during the 2002-2006 period even though the District Ranger has made (at least) verbal representations to the City and Borough of Juneau ("CBJ") that any alternative heliport sites that the CBJ designates will be considered in this USFS permitting process. In the context of the DEIS, these two statements are at odds. If CBJ alternative heliport sites will be in place for any portion of the 2002-2006 seasons, ample opportunity for public comment regarding USFS permitting such sites must be allowed before flightseeing commences at such locations or is permitted to continue out of currently existing locations. Any applicant for a permit, state-federal-local, must anticipate and account for foreseeable uses. The CBJ has coordinated its alternative heliport study with this DEIS such that the initial conclusions of the alternative heliport study will be presented this month. Alternative heliport sites are foreseeable. For the USFS to characterize alternative heliport sites as "speculative," fails to meet the foreseeability standard. This results in phasing or segmentation of

Cruise Control, Inc.

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Helicopter Landing Tours on the Juneau Icefield 2002-2006
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the overall flightseeing project and is, therefore, inconsistent with the National Environmental Policy Act, the Alaska Coastal Zone Management Act, and the common law of Alaska. The EIS must contemplate flight paths to and from these alternative sites *in lieu* of the existing sites. If a moratorium on flightseeing is necessary for one or two seasons in order to allow the USFS efforts and the CBJ efforts to come together, such a moratorium should be imposed.

- Landing free zones (Page 1-6) should also be overflight free zones.

- (Page 1-8) The chosen cap on flights should also include all landings made for support services (e.g. employee transportation, equipment maintenance, etc.)

- USFS should refuse to allow any flight route in any permit except those which avoid residential areas. The flight routes do not necessarily have to be the most direct route from the heliport base to the glacier landing site. There is ample airspace for operators to fly circuitous routes that keep them away from all residential neighborhoods at all times. Those should be the only routes permitted by the USFS.

- The DEIS proposes to extend permits for the 2002-2006 flightseeing seasons by one month (through adding 2 weeks to either end of the season). This serves to prolong the period of overflight noise in residential areas. The analysis of the effects of such a proposed extension is incomplete and unsupported.

- The proposed Antler Glacier Lake tour demonstrates that the airport is a viable location for beginning and ending fixed wing/float plane flightseeing tours. This option should be allowed only if it can be accommodated after the rest of the current float plane flightseeing tours are removed from Gastineau Channel to the airport. In addition, any such tour should clearly identify the operator and the type of aircraft to be used (the current DEIS does not).

- The recent flightseeing noise assessment commissioned by the CBJ showed that floatplane aircraft departing from the downtown Juneau harbor and flying over the South Douglas area, "result in the highest flightseeing noise impacts" in Juneau. BridgeNet Study, Page 5-6 (2000 Noise Assessment). The proposed Antler Glacier Lake tour will bring these especially noisy aircraft along the shoreline of Berners Bay. This means that fixed wing aircraft noise would be present south of town, north of town, and in the middle of town (at the airport) -- there would be no escape from this identified highest noise tour activity. Consequently, the Antler Glacier Lake proposal should be denied unless and until the applicants develop out-of-town starting and stopping points as well as flight paths that avoid the Berners Bay Shoreline (as well as all residential areas).

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- The *Scoping* section (Pages 1-17 and 1-18) of the DEIS fails to note that the extension of the glacier landing permits for the 2000 and 2001 seasons was an unauthorized action. These unauthorized actions prejudiced the ultimate decisions to be made by the USFS in this instance because the actions tended to determine subsequent development and limit alternatives.
 - The DEIS acknowledges that the quality of life in virtually all inhabited (i.e., residential) areas within the CBJ is negatively impacted by flightseeing (Page 1-18 - listing areas of noise impacts to residents). However, none of the alternatives listed makes any serious attempt to route flights outside residential areas; flights are routed mainly for the most direct access to the permitted landing areas. The USFS glacier landing permit can specify flight paths that avoid residential areas altogether; the flightseeing operators could then work with the FAA to obtain approval of the permitted flight paths.
 - Although the negative impacts of flightseeing noise are acknowledged, the DEIS does not analyze the economic, social, natural, or physical effects of flightseeing on the human environment as required under 40 CFR 1508.14.
 - All of the recreational areas around Juneau suffer greatly from the intrusion of helicopter flightseeing noise. These are the areas that Juneau residents can easily access after work and on weekends. To avoid helicopter flightseeing noise, Juneau residents must incur the expense and time to recreate in locations remote from Juneau. In short, Juneau residents are being displaced from their local places of recreation (in addition to the noise intrusion in all residential areas) by commercial flightseeing operations that cater primarily to users who live outside Juneau. To mitigate the effects of this displacement and noise intrusion, any USFS glacier landing permits should require circuitous flight paths that avoid road-accessible recreation areas and all residential areas.
 - The DEIS does not adequately specify the location of new areas that may be opened to flightseeing or associated activities. The DEIS does not adequately specify flight paths and amount of use for these unspecified locations. The DEIS must identify all new areas, including the proposed helicopter/fix wing flight paths, possible number of flights/landings in each area, and growth potential, including associated activities (and their attendant noise), for each area.
 - Although a consistency determination under the Alaska Coastal Zone Management Program may not normally be required in lesser instances, the scope of the activities contemplated in the DEIS requires such a determination. The consistency finding
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- CcLo 17
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- CcLo 19
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Cruise Control, Inc.

Comments on Draft Environmental Impact Statement:

Helicopter Landing Tours on the Juneau Icefield 2002-2006

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should be supported by findings of fact and must be issued and publicly distributed in a time and manner that facilitates meaningful review and comment or challenge by affected citizens of the Juneau Coastal District.

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The focus on removing flightseeing noise "from the most populous areas" is misplaced. Residents living outside those areas often chose to do so to escape the noises associated with greater density. The focus should be on removing flightseeing noise from all residential neighborhoods and road-accessible recreation areas.

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The discussion of the Mediation Results is shockingly incomplete and, therefore, misleading. The listed route change possibilities (Bulet 2, Pages 1-29 and 1-30) were discussed primarily in the context of the USFS stated intention to issue permits for the 2001 season sometime in January or February 2001. Without notice to the mediation participants, the USFS improperly issued those permits several weeks earlier than the time under discussion. This USFS action led many at the table to question whether the USFS was sponsoring and participating in the mediation effort in good faith. This USFS action was one of the main factors that lead to the mediation effort being abandoned. However, before the effort was abandoned, the participants generated an extensive list of mediation topics, which the USFS has failed to include in the DEIS. Specifically, the USFS failed to include the following mitigation measures that were under discussion when the mediation effort was suspended:

- Flight paths out and around all residential areas (mooring)
- the need to make altitude adjustments over residential areas and
- "Creating new heliport sites" wholly outside residential areas and applying the same restrictions to flight paths (all flightseeing operations removed from the sight and hearing of existing residential areas).
- With the creation of new heliport sites, abandoning those in current use
- Consider whether fewer flights are needed to reduce noise for longer-term
- Exploring USFS contract incentives to get operators to use quiet technology, including establishing a quiet technology deadline or imposing "no-fly" restrictions unless and until quiet technology is proven not to impact noise levels in residential areas
- Options for USFS mandated hours/days of flightseeing operation
- Concept of limited entry system for flightseeing
- Allow flightseeing operators to "bid" for available landings and evaluate according to reduced noise to residential areas (and other criteria to be decided)

Cruise Control, Inc.

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Helicopter Landing Tours on the Juneau Icefield 2002-2006

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- Discussing possible regulations that could have noise reduction benefits
- Establish a system of alternating flight paths that restrict residential overflights to morning or evening only depending on area.
- Improve "predictability" of flightseeing noise - operators publish flightseeing schedules
- Review and establish curfews
- Put a cap on flightseeing - Use 1994 levels until agreed mitigation measures are in full effect, allocating reduced number equitably among current flightseeing operators to avoid exclusion of those beginning after 1994.
- Concentrating flight paths and landing sites to minimize the dispersion of noise impacts - consider phasing out completely all flight beyond Herbert/Mendenhall/Norris/Taku glaciers.
- Keep flightseeing activity from remote sites or heliports within designated corridors until beyond forested or vegetated areas in order to provide noise-free recreation/wildlife areas.
- Consider flight paths that go around the backside of Douglas Island and up the Channel or "out-the-road" before crossing to glacier landing areas.
- Develop and implement incentives for operators (e.g., revolving loan fund, tax incentives, other incentives for equipment conversions to quiet technology, funding possibilities for specific improvements like satellite facilities)
- Find ways to make Juneau tourist-friendly while limiting tourism industry growth to areas that are completely beyond residential areas
- Bring any residential area that might be impacted "into the process" as early as possible.
- Review cumulative impacts of flightseeing activity, not just the impacts on USFS-managed property
- Eliminating secondary impacts (e.g., increased bus traffic)
- Recognize "annoyance" (from flightseeing noise) of residents as impact and basis for EIS

As with the mediation discussion items listed in the DEIS, those omitted from the DEIS (including some additional items not listed above) must also be considered for their relevance to this EIS. Because this information was not considered in this DEIS (See Page 1-32 - stating that only information contained in the DEIS was considered in the DEIS analysis), it is a draft statement that is so inadequate as to preclude meaningful analysis. As such, and because this inadequate information is used as the basis for the analysis provided in the DEIS and not just to a portion thereof, the USFS is required to prepare and circulate a revised draft of the entire DEIS before proceeding.

Cruise Control, Inc.
Comments on Draft Environmental Impact Statement:
Helicopter Landing Tours on the Juneau Icefield 2002-2006
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- The Durden Report recommendations state that Gastineau Channel must be eliminated as a flightseeing path if the flightseeing noise problem is to be solved. The USFS can do its part by permitting landings only by those flightseeing operations that eliminate any flying in Gastineau Channel during any kind of weather. Such a limitation should apply to the operator and not to the operation (e.g., if the operator receives a permit from the USFS for glacier landings, or glacier related landings, it must avoid flying in Gastineau Channel for all flightseeing activities, whether directly involving glacier landings or not).

- The "facilitated process" referred to on Page 1-32 was insufficiently defined, including identification of actual participants, timing, scope, and outcome. This information is required to allow meaningful analysis since without such detail it is impossible to determine where such nebulous information influences any particular conclusion or recommendation made by the USFS.

- The statement that "Idaho municipal ordinances will apply as part of the special use permit terms and conditions" is imprecise in that it does not state when such application would take effect within the context of any permit. This statement also posits that permits will be issued, although there is an alternative in the DEIS (Alternative A), which contemplates that no permits will be issued. Although this Section (Purpose and Need) purports to present information "to be considered" by the USFS in making a decision regarding glacier landings, this statement, along with the failure to include relevant information, is evidence that a decision has already been made without considering the public input solicited by the DEIS process.

- The discussion of possible "Noise Budgets" is insufficient as it does not specify the timing for public input on the "evaluation criteria," whether noise budgets might be implemented in concert with, or in lieu of, satellite heliports, sanctions that would be imposed for exceeding the noise budgets, limits on dBA levels even within the budgeted time, etc.

CHAPTER 2 - ALTERNATIVES

As the alternatives are currently configured, Cruise Control, Inc. does not support any of the listed alternatives. In addition, the DEIS should include specific information by area and neighborhood that depicts (by means of a table or figure) the true number of overflights (out and back) that can be expected for each given alternative. For example, if 19,039 becomes the target number of landings, there should be a visual representation of the fact that each of these landings will entail 2 overflights (total of 38,078 overflights) per relevant location.

Cruise Control, Inc.
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None of the alternatives, or ensuing discussion states what will happen if the number of landings permitted for a given season is exceeded. While permit numbers have in recent years exceeded landings booked or allowed by weather conditions, the problem of exceeding permitted capacity has happened in other local tourist related endeavors (i.e., guided trail tours) and could conceivably happen with flightseeing given the flightseeing operators preferred alternative. Sanctions must be considered and imposed as part of any permit, with ample public comment time provided for the range of possible sanctions that might be imposed.

Our specific comments on each alternative follow:

Alternative A

Cruise Control does not object to flightseeing activity as a viable form of mechanized recreation and acknowledges that it has become a popular activity for tourists visiting Juneau via cruise ship. Although we remain unconvinced by the representations of the tourism industry as to the true economic benefit of this activity for the local economy, it certainly brings some revenue to our community, which supports the local economy. We are also mindful that flightseeing-only tours would likely take place even if glacier landings were eliminated. For these reasons, we believe that Alternative A is impracticable as a means either of mitigating the negative impacts of flightseeing tour noise or providing a quality experience for visitors.

Alternative B

The number of landings provided in this alternative is a reasonable interim position if the CBJ selects and implements the move to alternative heliports and fixed-wing stations.

In addition, the USFS acknowledges that this alternative provides the "greatest noise relief" of all of the alternatives (Page 2-34). Given that this is the main mitigation focus of the DEIS, this is a significant mitigation factor present in none of the other alternatives.

All operation support flights should be included in the total number and time of permitted landings.

This alternative has the advantage for Juneau residents of providing two flightseeing-free days per week (although the actual days free should be specified).

Current flight paths remain a problem since they cross most, if not all, Juneau residential areas. Flights should be routed out and away from residential areas before entering the icefield.

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- Cc60 34 The USFS permit should include a minimum 1500 ft. altitude over residential areas and preclude permitted landings if these flight altitudes cannot be maintained due to inclement weather.
- Cc60 36 Names of operators and actual number of permitted flights per operators should be noted. Flight paths for each operator should be delineated on separate tables.
- Cc60 37 Permits should require operators to file for public record a seasonal schedule of flights each year.
- Cc60 38 Conducting commercial icefield landing tours and associated activities "in accordance with the laws, regulations or operational requirements" of relevant governmental entities is NOT a mitigation measure specific to this analysis.

Alternative C

- Cc60 39 This alternative has the advantage for Juneau residents of providing one flightseeing-free day per week (although the actual day free should be specified).
- Cc60 40 All operation support flights should be included in the total number of permitted landings.
- Cc60 40 The time for permitted landings should remain as in Alternative B (8:30 a.m. to 6 p.m.), including operation support flights.
- Cc60 40 Current flight paths remain a problem since they cross most, if not all, Juneau residential areas. Flights should be routed out and away from residential areas before entering the icefield.
- Cc60 41 The USFS permit should include a minimum 1500 ft. altitude over residential areas and preclude permitted landings if these flight altitudes cannot be maintained due to inclement weather.
- Cc60 41 Names of operators and actual number of permitted flights per operators should be noted. Flight paths for each operator should be delineated on separate tables.
- Cc60 41 Permits should require operators to file for public record a seasonal schedule of flights each year.
- Cc60 41 Conducting commercial icefield landing tours and associated activities "in accordance with the laws, regulations or operational requirements" of relevant governmental entities is NOT a mitigation measure specific to this analysis.

Please note that this and the previous requirement does not *prescribe* flight paths or altitudes, it simply specifies what the operator must do to be allowed a permitted landing. The operator remains free to ignore the permit condition, but may not land on the glacier anytime during a non-compliant flight without violating the terms of the permit and incurring a sanction for the violation.

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Alternative D

- As a general proposition, Cruise Control believes that the large number and wide array of landing sites leads to a large number and wide array of flights paths, especially since "safety" concerns are widely touted as the reason for deviating from flight paths currently in place. A preferred approach would be the consolidation of landing sites to a few areas that could be accessed by a few flight paths. The focus should be on those landing sites most easily accessed by the few flight paths that avoid all residential areas. For example, if heliports were moved to Dupont Dock or south, all flights could access Norris Glacier landing sites; if all flights continue from the airport, landing areas east or north of Berners Bay could be reached by flight paths that travel over Lynn Canal. While this approach likely requires some new landing sites, those could be employed *in lieu of*, not in addition to, existing sites. Given that most, if not all, tourists come from areas more congested with fellow humans than the icefields, and given that the thrill of the activity is to ride in a helicopter and walk on a glacier, the presence of other tourists in the immediate vicinity will have little or no effect on the value of the experience to that particular group of USFS users. There is no information in the DEIS to suggest that consolidation of landing sites would in any way lessen the visitor experience, while consolidation of landing sites would surely mitigate the negative noise impacts to residents and those on the trails (which impacts are acknowledged in the DEIS).
- This alternative allows for an increase in flightseeing noise since the actual number of landings has not reached the permitted level. The DEIS fails to specify any mitigation measures for the increase in noise.
- All operation support flights should be included in the total number of permitted landings.
- The time for permitted landings should remain as in Alternative B (8:30 a.m. to 6 p.m.), including operation support flights.
- The days for no landings (1 day per week and 3 holidays) is insignificant mitigation given the overall level of flights during the May-to-September lengthened time period.
- Current flight paths remain a problem since they cross most, if not all, Juneau residential areas. The increase in noise with the increase in flights does not show any effort to mitigate the noise identified and acknowledged by the USFS as a problem associated with flightseeing. Any increase in numbers makes necessary the elimination of residential area overflights.
- Flights to new areas must travel paths that avoid overflight of residential areas altogether.

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- USFS permit should include a minimum 1500 ft. altitude over residential areas and preclude permitted landings if these flight altitudes cannot be maintained due to inclement weather.
- Names of operators and actual number of permitted flights per operators should be noted. Flight paths for each operator should be delineated on separate tables.
- Permits should require operators to file for public record a seasonal schedule of flights each year.
- Motorized snow vehicle tours should be allowed only if their location is outside the sight and sound of residential and currently non-motorized recreation areas.
- Conducting commercial icefield landing tours and associated activities "in accordance with the laws, regulations or operational requirements" of relevant governmental entities is NOT a mitigation measure specific to this analysis.

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- This alternative allows for an increase in flightseeing noise since the actual number of landings to date has not reached the permitted level. The DEIS also fails to specify any mitigation measures for the increase in helicopter noise, or the fixed-wing noise that it proposes to add to a new area (the entire length of the Berners Bay shoreline) north of Juneau.
- All operation support flights should be included in the total number of permitted landings.
- The time for permitted landings should remain as in Alternative B (8:30 a.m. to 6 p.m.), including operation support flights.
- The increase in the number of days belies any talk of mitigation since the noise associated flight seeing will remain virtually constant throughout all days of the week of the extended season.
- Current flight paths remain a problem since they cross most, if not all, Juneau residential areas. The increase in noise with the increase in flights does not show any effort to mitigate the noise identified and acknowledged by the USFS as a problem associated with flightseeing. Any increase in numbers makes necessary the elimination of residential area overflights.
- Helicopter flights to new areas must travel paths that avoid overflight of residential areas altogether. Fixed wing flights from the airport float pond should be allowed only if they can be safely accommodated after all other fixed wing tour-related flights are moved to the airport and a determination is made as to any detrimental effect of noise on the nearby residential areas.
- USFS permit should include a minimum 1500 ft. altitude over residential areas and preclude permitted landings if these flight altitudes cannot be maintained due to inclement weather.

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- Names of operators and actual number of permitted flights per operators should be noted. Flight paths for each operator should be delineated on separate tables.
- Permits should require operators to file for public record a seasonal schedule of flights each year.
- Motorized snow vehicle tours should be allowed only if their location is outside the sight and sound of residential and currently non-motorized recreation areas.
- Conducting commercial icefield landing tours and associated activities "in accordance with the laws, regulations or operational requirements" of relevant governmental entities is NOT a mitigation measure specific to this analysis.

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Alternatives F & G

- These alternatives are completely unacceptable in all respects as they necessarily provide for a substantial increase in flight related noise in residential and remote areas with no concomitant mitigation measures.
- These alternatives appear only to be included as a means of justifying the selection of the proposed action alternative (Alternative E) by way of threatening what the USFS could do to meet the demands of the flightseeing operators if the comparatively "reasonable" proposal is not accepted.
- Conducting commercial icefield landing tours and associated activities "in accordance with the laws, regulations or operational requirements" of relevant governmental entities is NOT a mitigation measure specific to this analysis.

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CHAPTER 2 - COMMON MITIGATION MEASURES

- See comments above regarding compliance with laws.
- Satellite heliports - The USFS has participated in the planning and discussion of satellite heliports and has represented to the CBJ Assembly that the USFS will change the permits in accordance with CBJ decisions or ordinances regarding satellite heliports. See comments above.
- USFS Designated Flight Paths - The USFS has skirted this issue, which should be reanalyzed and resubmitted for public comment prior to the EIS. The issue is not whether the USFS has the authority to stipulate and enforce flight paths for aircraft, but whether the use of certain USFS-designated flight paths can be specified as a condition of permitting icefield landings. The USFS does not need the authority to control aircraft operation in order to specify that permits will be issued only to those operators who agree to follow specific flight paths (and which operators will make the necessary arrangements with the governing authority - FAA - to have such flight paths properly authorized).

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Concentrated Tours - The stated reason for abandoning consideration of this mitigation possibility is nonsensical. It does not necessarily follow that concentrations of flights and landings needs to impact any one neighborhood or residential area at all - flights and flight paths could be concentrated away from residential areas. Also, there is also no information as to the specific location where noise impacts would "displaced."

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Table 2-9 - Most of the concern regarding flightseeing tours focuses on the excessive amount of noise that these tours bring to the residential neighborhoods of Juneau because tour routes pass directly through these neighborhoods. Table 2-9 fails to include residential overflights, although it is a critical part of the comparison criteria for the proposed alternatives. When the potential number of residential overflights is included, Table 2-9 will show that each of the "landings" entails two overflights of residential areas as acknowledged by the USFS (Page 3-23). For example under Alternative B, the permitted number of landings (11,881) entails helicopters leaving and returning to their operations base. The departing and returning legs of these flights pass over residential areas resulting in a total of 23,762 overflights under this alternative. Using Alternative B as a base number, Alternative C would increase the number of residential area over flights by approximately 40 %; Alternatives D and E would increase the number of residential over flights by approximately 60 %; Alternative F would increase the number of residential over flights by approximately 103 %; Alternative G would increase the number of residential over flights by approximately 158%. Without this comparison criteria a critical point of comparison is lost.

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Noise Impacts to Residents - While the USFS may not have "authority to enforce" some of the recommended or required good flightseeing practices which are designed to help alleviate the noise problem for residents, the USFS does have authority to require adherence in the issued permits AND to impose sanctions for failure to adhere.

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- Frequency of Flights** - Characterizing Alternative E as having "superior performance" concerning noise is misleading. The equation is quite simple: more flights mean more noise. Lengthening the number of hours in the day when flights are permitted simply extends the noisy time. Selecting Alternative E over Alternative B (as suggested in this USFS paragraph) simply means that a residential over flights would occur (on average) every 2.75 minutes for 11.5 hours (Alternative E), versus every 2.75 minutes for 9.5 hours (Alternative B). This average frequency of flightseeing tours rivals (and in some cases exceeds) those found at large airports throughout the world. Given the high level of noise associated with the frequent flightseeing, eliminating two hours in of each and every day through a 5-month season represents a substantial amount of noise relief. This is a point that the USFS acknowledges (Page 2-34) and should follow. By giving residents this substantial relief, the level of annoyance with this activity

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should also drop since, as the DEIS acknowledges, annoyance from noise increases with duration (Page 3-23).

- Impacts in New Areas - This section fails to include a discussion and analysis of the added areas of noise associated with overflights to reach new areas. For example, the Antler Glacier Lake proposal would bring regular fixed wing and helicopter noise to the entire Berners Bay shoreline, making quiet recreation in this area impossible.

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CHAPTER 3 - AFFECTED ENVIRONMENT

- The discussion of the changes in the Southeast Alaska economy fails to note that, at least for Juneau, one additional factor that has contributed to the shift to retail and service employment is the recent State government practice of allowing high-paying state positions, formerly based in Juneau, to move to Anchorage.
- Cruise Control recognizes the economic importance of tourism in Juneau and does not dispute that many tourists (primarily those from cruise ships) find flightseeing tours to be a highlight of their trip. Unfortunately, what is a delight to these visitors is a detriment to those on the ground because businesses that rely upon relative quiet (e.g., bed and breakfasts, businesses requiring quiet for work via telephone, etc.) are unable to productively pursue their business due to flightseeing noise. No study has been undertaken to date to determine the amount of revenue lost by these businesses due to interference from flightseeing, although anecdotal information is available.

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- To date, and again in the DEIS, the USFS has framed the issue surrounding flightseeing noise as citizens who like or tolerate this noise versus those who do not. Casting the question as a "people problem" is a misplaced focus. The noise study commissioned by the CBJ in 2000 concluded that, due to flightseeing as it is currently being conducted in this type of terrain², Juneau has a "noise problem," not a people problem. The question is not one of tolerance or intolerance, nor is it a question of whether some like the sounds of flightseeing or not. The question is one of where and how flightseeing companies can conduct their businesses without causing harm (through excessive noise) to residents and other types of business.

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The CBJ began grappling with that question when it commissioned the 2000 noise study, and when it participated in the ill-fated mediation effort. The CBJ continues to grapple with it through the commission of a study for alternative heliport sites designed to remove flightseeing and overflights from residential areas. The USFS will either assist in this endeavor or hinder it through the alternative that is chosen in

² It should be noted that the terrain in and around Juneau is a significant contributing factor to the noise problem associated with flightseeing since it renders noisy activities in Juneau "noisier" than they might otherwise be in drier, less mountainous areas. See discussion, Page 3-19, of 2000 Noise Assessment.

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the EIS. Framing the issue in the DEIS with a neutral perspective will assist the process; the current DEIS emphasis on "intolerant people" versus "tolerant people" will not.

Within the context of the DEIS, framing the issue as "tolerant" versus "intolerant" people is an impermissible value judgment; this judgment (and similar ones throughout the DEIS) demonstrates a bias within the Juneau Ranger District that indicates a need to remove the decision-making capability in this instance to another capable of making an informed, impartial, properly-based decision.

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Acoustical Environment - The 1999 Acentech noise study should be included in the DEIS if it is relied upon to support the analyses therein. However, that study was significantly flawed in several respects and it should be discarded and replaced with a meaningful study. Its first flaw was that its assessment of ambient background noise included noise associated with fixed wing flightseeing. This flawed precept makes much of the information relied upon in this section of the DEIS inaccurate as an indicator of cumulative flightseeing effects in Juneau. In addition, the 1999 Acentech study and the 2000 Noise Assessment used different methodologies and background data. For these reasons, comparisons between the two are unhelpful.

- For example, the discussion of Site 8 (Page 3-17) states that the "background sound" is dominated by float planes and that noise from helicopters merely "contributed to" some of the background sound. The float plane activity contributing to the "background sound" for the 1999 Acentech study is the same activity noted in the 2000 Noise Assessment as the source of the "highest flightseeing noise impacts" in Juneau. The 1999 Acentech study is replete with such inaccurate representations (which, not surprisingly, lead to inaccurate conclusions or faulty recommendations) due to the improperly narrow focus of that study. Further discussion of sites in this area (Site 25, Pages 3-21 and 3-22) highlights this fact. The 1999 Acentech study represents the "background noise" at Site 25 (with floatplanes) to be between 45 and 57 decibels. The 2000 Noise Assessment, which properly considered background noise to be that level absent all flightseeing, to be between 25 and 30 decibels. These are significant discrepancies and highlight the bias of the 1999 Acentech against a representative analysis of the cumulative effects of flightseeing in Juneau.

The 1999 Acentech study also relied upon flawed noise metrics. While it gave considerable lip service to the "public annoyance" relationships developed in the 1970's, it fell back upon the standard of 65 dBA that was developed for airports. The entire community of Juneau is NOT an airport and should not be treated as such. The 2000 Noise Assessment is far more representative of Juneau. Better still would be a particularized study that disregards Ldn (since flightseeing NEVER occurs at night), is weighted for the actual days when flightseeing occurs, gives no values (other than background values) to off-season periods, and is in the nature of the dose-response relationship studies conducted by Harris Miller Miller & Hanson,

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Inc. (HMMH) for the National Park Service in the Grand Canyon. See, NPOA Report No. 93-6; HMMH Report No. 290940.14, *Dose Response Relationships Derived From Data Collected at Grand Canyon, Haleakala and Hawaii Volcanos National Parks*, October 1993.³

CHAPTER 4 - ENVIRONMENTAL CONSEQUENCES

- Table 4-1 - The discussion of *Changes in the Acoustical Environment* is incomplete because it fails to include the effects associated with the overflights of residential neighborhoods that occur with each landing. Table 4-1 should include this data. The discussion of changes in the acoustical environment must include the actual number of residential neighborhood overflights associated with each landing.
- *Environmental Consequences for Residents* - This analysis is incomplete. It does not take into account the fact that two overflights of residential neighborhoods occur with each landing. It also fails to extrapolate the concentration of overflights into virtually all of the waking hours of the day in the 5-month period covered.
- *Classroom Learning Interference* - The conclusions made in this section are erroneous as they are based on the faulty (see above discussion) Acentech 1999 study data. Correct data is available and must be used to provide an accurate analysis of this critical factor -- the future and safety of Juneau's children must not be sacrificed to short-term financial gains and the needs of tourists for exciting vacation experiences.
- *Sleep Interference* - The analysis of sleep interference is incomplete and unsupported by any data.
- *Communication Interference* - The analysis of the data referenced in this section is insufficient, especially in light of the fact that all Juneau residential neighborhoods are subjected to frequent flightseeing overflights, i.e., speech is frequently interrupted by flightseeing activity for five months of every year. Speech interruption does not refer only to casual conversation between friends and neighbors, but includes those whose business activities suffer regular interference from the presence of flightseeing -- the DEIS analysis elevates the flightseeing business over all others that suffer from its operation.
- *Annoyance* - The analysis in this section ignores nationally recognized studies and information readily available. See *Aircraft Overflights in Parks*, N.P. Miller, Noise Control Eng. J. 47 (3), 1999 May-Jun, discussing appropriate evaluation of annoyance associated with noise from aircraft over flights. The

³ This study is available from The National Park Service, Denver Service Center, 12795 W. Alameda Parkway, Denver, CO 80225.

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analysis is also faulty because it is based upon data that does not address the specific situation regarding flightseeing practices in Juneau or data, which is faulty or biased (the Acentech 1999 study). In addition, the use of Ldn as a basis for analysis of the noise problem in Juneau has received wide criticism and discussion, none of which is included in the DEIS analysis. See, 2000 Noise Assessment.

• *Discussions/Analysis of All Alternatives* - The discussion/analysis of each alternative under the information in Chapter 4 must take the above information into account. The discussion in all alternatives must include the number of residential neighborhood overflights, not just the number of permitted landings. Reductions or increases in flightseeing noise cannot be characterized as a "slight" (Alternatives B, C, D, and E) if the above comments are taken into account. Similarly, the characterization (Alternatives F and G) that noise increases "may not be noticeable to most people" is not supported by the information and data referenced in the foregoing comments or in the DEIS. The value characterization that objection to noise is based on a subjective "desire" to have fewer over flights is not supported by the data within the DEIS or the data and information in the comments above, and further highlights the bias inherent in the DEIS.

• *Environmental Consequences for Recreationists* - The analysis and discussion in this section does not address the cumulative effects on natural quiet in recreation areas that result from all mechanized uses allowed or occurring in these areas, including flightseeing. It also does not address the number of recreationists displaced by cumulative mechanized use. It fails to discuss the possibility of "zoning" certain areas for mechanized uses, reserving the balance of the areas for those who wish to enjoy the natural quiet.

• *Environmental Consequences for Wildlife* - The analysis and discussion in this section fails to take into account the effect of flightseeing noise on area wildlife as shown in recognized studies of aircraft noise effects. See attached bibliography and items referenced therein.

CONCLUSION

In addition to the comments above, the DEIS fails to consider the social impacts resulting from flightseeing noise that are truly significant to the community. It also includes only alternatives that can be managed by the USFS, ignoring other reasonable alternatives not within the jurisdiction of the USFS. With these critical problems, and based on the above comments, it is difficult to support any one of the alternatives offered.

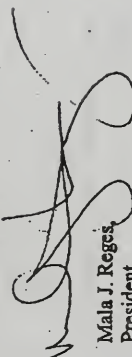
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However, Cruise Control believes that an amended Alternative B comes closest to a middle-ground position. An amended Alternative B gives some noise relief to citizens by reducing the permitted number of overflights from the current authorized level of 38,078 to the 1994 actual use level of 23,762. This alternative also allows a reasonable level of flightseeing activity, while the CBJ pursues its plan to remove flightseeing operations and overflights from residential areas. An amended Alternative B will also allow time for the adequate study and analysis of the effects of flightseeing on wildlife and allow the USFS to devise a plan to eliminate the displacement of non-mechanized users in the USFS-managed lands in and around Juneau.

Based upon the comments, discussion and recommendations above, Cruise Control, Inc., urges the USFS to adopt an amended Alternative B for helicopter landing tours on the Juneau Icefield for 2002 through 2006.

Sincerely,

Cruise Control, Inc.



Mala J. Reges,
President

Attachments: 19 (Bibliography and 18 documents referenced therein) accompany the mailed copies of these comments. NOTE: Documents accompany only the original of this letter sent to Ellen Hall, Foster Wheeler Environmental Corporation, via U.S. Mail.

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June 1960

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which were then taken together for good
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was done by another person, and I
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2001 年 6 月

P.O. Box 32982
Juneau, AK 99803-2982
September 3, 2001

Ellen Hall
Foster Wheeler Environmental Corp
12100 NE 195th St., Suite 200
Boothell, WA 98011

Ms. Hall:

Please consider this letter in support of alternatives F and G of the Forest Service helicopter study of glacier landings. As I understand the issue these are the alternatives that will allow the Industry to grow.

It is my feeling that the helicopter industry is a very good neighbor and contributes a great deal to the Juneau community and its hinterland.

Years ago the helicopters would follow the Mendenhall River to the Mendenhall Glacier. They tended to fly very low and the sound was deafening. The community complained and they moved their flight path to the ridges along the valley's edge. This has lessened the problem. It is my understanding the helicopter industry has steadily worked to reduce the noise problem and improve its relationship with the community.

As a side note, about a month ago I was visiting a friend in Douglas. It was a warm sunny day. I was on a bluff overlooking the Gastineau Channel. While I was pondering the beauty of the area a large single engine plane and helicopter flew down the Channel. I remember chucking to myself that I could not hear the sounds of either planes engine. A commercial fishing boat was headed down the channel with a blown muffler. I cannot remember anyone complaining about the noise fishing boats make.

A healthy helicopter service provides many benefits beyond their presence in the summer. With a large fleet of warrants keeping at least a portion of them flying during the winter months. As such, they are available for med-vac flights from outlying communities. There are many people alive today because of this service.

The anti-growth people in Juneau have complained about the low paying jobs the tourism industry has available. The helicopter industry makes available a portion of these positions. These are entry level jobs that many high school and college students without these jobs our kids would be wandering the streets, many getting into trouble or leaving the community: My daughter who is a senior in high school has

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Chas. T. Hall
Box 20587

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worked in these jobs for two summers now. It has been excellent training. She has gained a work ethic, learned to work with diverse personalities, and decided that education has value—she doesn't want to be a clerk all of her life. She is now talking about attending college. Without the availability of these entry-level jobs, she and many other kids would be headed in the wrong direction.

The helicopter industry needs to be able to grow with the tourism industry, therefore, I urge you to select an option that will allow them to continue steady growth.

It has been my observation that the large number of anti-growth people and groups in Juneau are never satisfied when they are able to restrict or kill a project—and they have been remarkably effective. They come back wanting more restrictions and cutbacks. In my estimation the U.S. Forest Service has been far too responsive to their demands to the disregard of the majority of the public.

Thank you for your consideration of my comments.

Sincerely,



David Bruce

DBM

RECEIVED
10-1-01

October 1, 2001

RE: Helicopter Landings on the Juneau Icefield

I am a 40 year resident of Juneau and have watched the tour industry grow over the years. I always felt it was great that people would come to enjoy the amazing outdoor arena that "locals" enjoy daily. The past 3-4 years the tour industry has grown so rapidly that many of us who once gladly welcomed visitors, now feel quite overwhelmed by the number of tourist visiting the Juneau area. The tour industry does not seem to appreciate that many of us now avoid areas we once frequented because of crowds and noise. I am all for mutual enjoyment and sharing, but the industry seems so focused on their bottom line they have forgotten it's a community of year round residents upon whom they are imposing their need for more, more, more. I think there is a need for balance and the number of landings is more than adequate. I do not feel I should have to give up what I treasure (quiet enjoyment of the outdoors) so someone can make more money.

I understand the helicopter tour companies requested their clients send comments to you about how much they enjoyed the icefield tours this summer. I hope the comments from year-round residents are given more weight than the one-day tourists in the decision-making for helicopter landings for years to come. After all, it is our community and must listen to the aircraft noise 7 days a week, 5 months each year.

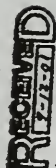
I am strongly encouraging the Forest Service to cap the helicopter landings on the Juneau Icefield at its present 2001 level. I do not feel this community can tolerate any further increases. This is a fairly reasonable request, I feel I have shared my community as much as I can for many years and do not want to have the things I treasure (quiet enjoyment of the outdoors) completely eliminated by an increase in aircraft noise. I personally have reached my maximum people and noise tolerance as have many other people in the Juneau area as indicated by various surveys.

Thank you for the opportunity to comment.

Sincerely,
Denise A. Biefgen McPherson
POB 240911
Douglas, AK 99824

email: denscott@alaska.net

DC



To: <ehall@fwenc.com>
cc:
Subject: Helicopter Landing Tours Juneau 2002-2008

"sam capp"
<samcapp@acsalaska.net>
09/12/01 11:51 AM



Please lower landing numbers and reduce operating days and hours (alternative B). Until quieter technology is in use and alternative take off and landing sites are in place it is the only option that will offer any noise relief to residents. The current levels of operation hammer residents with noise for 30 minutes of every hour from 8am to 8pm. This is not a 30 minute event but a series of irritations over and over each hour. The airport has become a 2 mile long heliport. The adjoining residential areas are vibrated with blade chop and penetrating low frequency vibration as the helicopters ascend and descend.

I have lived at my current address for 18 years. I look forward to spring and gardening. When the noise drives me away I turn to hiking. As your maps illustrate there are no trails left on the Juneau road system that are not helicopter paths.

Residents deserve consideration as well as tourists. Please consolidate overflight paths and reduce hours and days of operation. I understand that this is a trip of a lifetime for tourists, please remember it is daily life for residents who live here.

Thank you for your consideration,

Debra Cokley
2194 Cascade St.
Juneau, AK 99801

DC 1

DC 2

DC 3

REC'D SEP 25 2001

DDF

COMMENT Form

Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name Douglas D. Farrier
Address PO Box 231315
City, State, Zip ANCHORAGE Alaska 99523
e-mail address _____

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- ☐ The EIS Process
- ☐ The Alternatives
 - ☐ Alternative A
 - ☐ Alternative B
 - ☐ Alternative C
 - ☐ Alternative D
 - ☐ Alternative E
 - ☒ Alternative F
 - ☐ Alternative G
- ☐ Significant Issues
 - ☐ Noise Impacts to Residents
 - ☐ Noise Impacts to Recreationists
 - ☐ Impacts to Wildlife
 - ☐ Impacts in New Areas
 - ☐ Economic Uses

My Comments

DDF
1

I Really Don't See How Helicopters Landing
On The Ice Field Can Cause That Severe Impact

Over...

DF



Dave Fremming
 <mcphee@alaska.com>
 To: ehall@twenc.com
 cc:
 Subject: Flightseeing in Juneau
 09/24/01 12:04 PM



Many in this community have worked hard for decades to build the visitor industry in this area. Without it, we would be facing hard times. Our downtown area would be in significant decay and remaining property owners would be faced with confiscatory taxes to shoulder the burden. In recent years, we have been infected by whiners that think profit is a dirty four letter word and are working hard to tear down what we have worked so hard to build up.

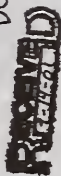
I suggest that whining about airplane noise is a red herring. They just want to shut down the visitor industry period!

I know that when my dog barks, I think he is just "trying to communicate." When my neighbor's dog barks, I feel the same way. I like my neighbor. I would never complain about his dog. If I didn't like my neighbor, however, I would not tolerate his dog either! That is just human nature 101 at work. Believe me, it is not the helicopter noise, or the fixed wing airplane noise these whiners are talking about. It is simply their way to attack the visitor industry. It is the same group that is complaining about engine smoke, wastewater discharge and the sheer number of guests. They moved here recently and many are wealthy enough, or live off of welfare and don't have to have real jobs, so they bitch about those of us that still need to work for a living.

Dave Fremming, Publisher
Alaskan Southeaster Magazine
YOU ARE HERE! Your Coastal Alaska Visitors Guide
 McPhee Publications Inc.
 9301 Glacier Highway
 Juneau, Alaska 99801
 1-800-478-3702 Toll Free US & Canada
 907-790-2940 Juneau
 mcphee@alaska.com
 www.mcpheepub.com

DF
1

DGH



John & Dianna Hebert
 870 So. La Paz Road
 Maricopa, AZ 85239
 (520-) 424-9838
 (520) 424-9346 (fax)
 hebegabees@hotmail.com

September 4, 2001

Ellen Hall
 Foster Wheeler Environmental Corporation
 12100 NE 195th Street, Suite 200
 Bothell, WA 98011

RE: DEIS - Helicopter Landing Tours on the Juneau Icefield - 2002-2006

Ms. Hall:

I am currently employed by Coastal Helicopters for the summer and look forward to returning to Juneau in the Summer of 2002 for more tourist-oriented employment.

DGH-1 | For me and others in the Tourist Industry to continue employment, on a seasonal basis, it is dependent on my employers ability to land on the Juneau Icefield. I therefore recommend that the District Ranger select either Alternative "F" or "G" in the DEIS.

DGH-2 | There is nothing I would rather do every summer than share my state with visitors. Please allow continued access to the Juneau Icefield so many more people can see and appreciate this beautiful place. Thank you for the opportunity to comment on this DEIS.

Sincerely,

Dianna G. Hebert
 Dianna G. Hebert



Kent and Debbie Hart
<hart@gci.net>
10/01/01 01:03 PM
Please respond to hart

To: ellen@fwenc.com
cc:
Subject: Comments: Helicopter landing tours on the Juneau Icefield
2001-2006 EIS

To: Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th St., Suite 200
Bothell, WA 98011

From: Debbie Hart
9371 North Douglas Hwy.
Juneau, AK 99801

Date: October 1, 2001

Re: Comments: Helicopter landing tours on the Juneau Icefield
2001-2006 EIS

I would like to just provide a few comments on the Helicopter landing tours on the Juneau Icefield 2001-2006 EIS. First and foremost, this EIS appears to be incomplete in that the entire island of Douglas was not considered in the EIS. As a resident of this island I am deeply concerned about this. Currently one of the helicopter companies operates on Douglas Island. Their only facility is on the island and all of their homebase take offs and landings occur on the island. Secondly, the issue of satellite heliports has become a big issue in these discussions and currently Eaglecrest ski area has been included as a possible location. This area also lies on Douglas Island. I would hope that the USFS has plans to update this EIS with information concerning the impacts to the residents, recreationists and wildlife on Douglas Island.

My overall opinion on the number of helicopter flights is that we are currently above levels tolerable by local residents, recreationists and wildlife. I would prefer the USFS adopt Alternative B or a similar alternative recently submitted by a local community group where the number of flights aloud per day is also addressed and restricted to a set level. However, most importantly I would ask that the USFS not increase the number of flights allowed over what the current level is.

This is a tough issue and I wish you all the best of luck with finding a solution.

Thank you,
Debbie Hart
907-463-4400
hart@gci.net

DH
1

DH
2

REC'D SEP 25 2001

DL

COMMENT FORM

Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name Donna Kamen
Address PO Box 35573
City, State, Zip Juneau AK 99803
e-mail address lingling@gslnet

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☒ Yes ☐ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☒
Alternative G ☐
Significant Issues ☐
Noise Impacts to Residents ☐
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☐
Impacts in New Areas ☐
Economic Uses ☐

My Comments

I have worked in the Juneau tourism industry for nearly 7 years and unlike other vacation destinations, what lies beyond our roads is simply breathtaking. It is indescribable. Yes, standing in downtown Juneau, by the water is quite lovely...it is picturesque, but having the ability to travel past downtown and over the mountains leaves you utterly speechless.

My Comments

DL 1
Helicopters offer an once-in-a-lifetime opportunity for our guests to see the majestic beauty of this great state. This state is part of a great country that belongs to everyone not just to the people who call Alaska home. Everyone who dreams of seeing the Juneau icefield, of experiencing the thrill of standing on a "river of ice" should be given that opportunity without debate.

As an employee of Era Helicopters I can say without a doubt that the service we provide is unmatched by any other tour opportunity in Juneau. Not only do we provide thousands of people a rare opportunity to view their glaciers, but we also do so without leaving a trace of evidence on the glacier. We leave nothing but footprints behind.

DL 2
I support Alternative F for several reasons; first it offers an increase in potential landings on the icefield. As with any business, whether it is selling ice cream or running a Fortune 500 company, you need to expect reasonable growth. Secondly, it is unfair and mean-spirited to consider "no-fly" days. I consider that an act of discrimination.

Thank you for taking the time to read my comments. I know your schedule is busy, but your determination to make the right decision is greatly appreciated.

DLW

RECEIVED
JUL 27 2001

August 28, 2001

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

RE: DEIS - Helicopter Landing Tours on the Juneau Icefield

Dear Ms. Hall:

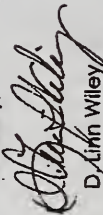
DLW 1
The purpose of this letter is to encourage your support for the continuation of helicopter flightseeing tours on the Juneau Icefield. I strongly recommend that the District Ranger select Alternative "F" in the DEIS. This option would provide continued access to the Juneau Icefield and allow a modest amount of growth for the Alaskan businesses that depend on access to these National Forest lands.

DLW 2
A few years ago, while visiting Juneau, my family and I made a special point of taking a helicopter tour of the Juneau Icefields. This was the highlight of our trip to Alaska. We still look at the pictures on a regular basis and remember this exciting excursion.

Our helicopter tour allowed us to see and touch centuries old ice and enjoy an unequalled recreational experience. We were impressed with the care and safety exhibited during our tour. We were equally impressed with the concern for the environment.

I appreciate this opportunity to comment on the DEIS and look forward to learning the outcome. I have always been quick to recommend this excursion to others traveling to Juneau.

Sincerely,



D. Lynn Willey
11018 Deer Canyon Drive
Alta Loma, CA 91737



Douglas Mertz
 <dmertz@alaska.net>
 >

09/28/01 05:41 PM

To: ehal@twenc.com, pgriffin@ts.fed.us
 cc:
 Subject: Helicopter landings on Juneau Icefield EIS

DM
RECEIVED
 10-1-01

Dear Ma. Hall:

Please accept these comments on the draft EIS for helicopter landings on the Juneau Icefield.

1. I believe the draft EIS is wholly inadequate due to its failure to adequately study the impact on the human environment of helicopter noise at current or proposed levels. The physiological impacts as well as the impacts in terms of discomfort, annoyance, and disincentives to live in Juneau and to use Forest Service and other impacted property are of major importance. We know of several people who have moved from Juneau because of the current level of helicopter noise. Our own experience is that our community (we live in Douglas, Alaska) is one of the quietest neighborhoods anywhere 8 months of the year, the exception being the helicopter tourism months. This quiet is one of the major factors making it a desirable place to live and recreate. It would be a major error to permit increased or even current levels of helicopter activity without an adequate study of their impact.

2. I believe that the actions of District Ranger Griffen in extending the current permit without a permitting action subject to an EIS violates the National Environmental Policy Act. His actions were, incontrovertibly, a "federal action"; the courts do not permit evasion of the EIS process under the guise of inaction. There is no doubt that what Ranger Griffen has allowed to happen during the current tourist season has impacted the environment and should not have been done without an appropriate review under NEPA.

3. Finally, it is clear to me that the noise of Juneau has reached a critical impact from helicopters. My own experience of having fleets of helicopters fly over my home day in and day out, morning through evening, is enough to convince me that current noise levels are not acceptable. New technology will not arrive for years to come and its availability is too speculative to base a major federal decision on. In any case, the problem will remain if new technology merely allows more flights so that there is no substantial reduction in the current impact. It is apparent to me that the needed action to avoid or minimize damage to the environment, including the human environment, is a substantial and immediate reduction in helicopter noise. It is disappointing that the draft does not present more alternatives for reducing noise, in particular by the only certain and immediate method, reduction of the number of flights. I recommend
 a) cutting back to flight levels in 1994: 11,881 landings;
 b) flight operations only from 8:30am to 6:00pm;
 c) no non-emergency flights or landings on Saturdays;
 d) Maximum of 90 landings per day;
 e) flight paths restricted to non-residential areas and at no lower than 1500 feet AGL, with no exception for poor weather (in weather so poor that normal flight operations must be modified, flight operations should

DM | be prohibited for safety reasons).
 4 Thank you for considering these comments.
 (ent)

Douglas K. Mertz
 1215 Fifth Street
 Douglas, Alaska 99824

DMac
REC'D SEP 25 2001

"MacPhall"
<bandmac@gcl.net>
09/24/01 08:48 PM

To: <ehall@fwenc.com>
Cc:
Subject: helicopter landings - region X

I believe the industry has made an effort to reduce the disturbance caused by their noise, but I do not feel that increased flights and/or landings are justified. Their activity is just about at the maximum the community should be asked to tolerate. I live in the valley and have accustomed myself to a level of overhead summer noise. But please don't ask me to agree to any increase. I would certainly support a decrease in the number of landings permitted, but can live with the current numbers.

DMac
1

The concept of moving the departures to outlying heliports is utterly ludicrous. The study published today in the Juneau Empire recommends establishing a remote base out Montana Creek Rd. and another at the end of Thane Rd. That would only mean that we would have to go even farther to find some degree of peace and quiet. That would simply make the situation intolerable.

DMac
2

DMac
3

Either leave the permit numbers as they are, or reduce them. Please do not spread the intrusion further into the natural surroundings of Juneau.

Thanks for the chance to state my opinion.

Deanna Mac Phall
POB 32422
Juneau, AK 99803

RECEIVED
11/27/01
DMG

"Deanna H. Gummert"
<dggummert@gcl.net>
09/22/01 02:01 PM

To: "Ellen Hall" <ehall@fwenc.com>
Cc:
Subject: Icefield permits/Juneau

September 22, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th St
Suite 200
Bothell, WA 98011

RE: DEIS/Helicopter Landings/Juneau Icefield

Dear Ms. Hall:

I am a thirty year resident of Juneau and my husband was born and raised in Juneau. We live in the highland area of the city above the Gastineau Channel downtown. Over the past ten years the tourist air traffic has increased to the point that our nerves are a constant jitters during the summer months. The helicopter noise is especially bothersome as it is sustained for such long periods of time while six or seven helicopters fly first in one direction over our house and then in the return direction about 20 minutes later as they come and go to the ice fields. This pattern is repeated over and over on every summer day. Our mountain and water geography amplifies the sound even when the helicopters fly at higher altitudes, but because our weather is often overcast with low clouds the helicopters frequently fly low over our home increasing the volume of the racket even more. When the helicopters are going overhead the windows rattle in the house and if we are in our yard the noise is so loud we cannot converse.

DMG
1

It is unacceptable that the commercial interests of a small number of Juneau residents should impose a burden on many other residents in the form of a public nuisance so extreme that we cannot find comfort in our own homes for six months of the year. The review of this issue by the forest service so far is so skewed in favor of the commercial interests that little mention is made of the evidence supporting the fact

DMG
2

that many Juneau residents are extremely negatively impacted by the current levels of flight allowed - I am speaking of the voter initiative to require our city to regulate the flights and of the noise study conducted which supported that the levels of noise were similar in the downtown area to what they are at the Seattle airport. We are of the strong opinion that the flight levels should be reduced.

Thank you for your consideration of these comments.

Sincerely,

DeeAnn H. and Michael A. Grummett
316 Coleman St.
Juneau, Alaska 99801

Action: Filled
Status: 4.4.7
Remote-NTA: DNS: svlwo.wa.fs.fed.us
Last-Attempt-Date: Tue, 2 Oct 2001 05:28:41 -0400
----- Message from "Kim Titus & Deb Rudis" <akwildlife@ci.net> on Mon, 1 Oct 2001 23:32:58 -0800 -----
To: <petergriffin@fs.fed.us>
Subject: Helicopter Landings

Dear Pete,

I am writing with concerns over the proposed heliport in the Montana Creek drainage. This area is used for dispersed recreation, it is popular with anglers, hikers, runners, and neighborhood walkers. We often see bear sign in the area when salmon are in Mt. Ck. The only commercial operation we see in the Mt. Ck Rd area is the horseback riding concession. I frequent the area and rarely hear noise from any aircraft.

I live on River Rd. which is a very quiet street, yet we can easily hear morning duck hunters at the wetland and air traffic. We can also hear shooting from users at the rifle range. These noises are not uncomfortably loud, but it is surprising how far these sounds carry. If helicopters were using the Mt. Ck drainage as a launching area, these sounds would be much louder in my neighborhood, and I am afraid uncomfortably so. Helicopter noise from overflights could bounce off the steep topography of the mountains (particularly Mt. McGinnis) and be magnified throughout the area. I would like to see a noise study conducted in this area before a selection is made for a heliport.

Presently there is limited traffic on Mt. Ck Rd and there is no shoulder or bike path. Bus traffic transporting visitors to a heliport would add a heavy traffic load to this residential area. I do not think that the Mt. Ck area is appropriate for a heliport site. We already have excessive noise and over-development in other areas of Juneau, let's not spread noise into quiet residential and recreational areas.

Regarding the proposed increase in the number of helicopter landings to 14,034, I am in favor of seeing BACK the number of landings. I would propose a gradual decrease to no more than 15,000 landings per year. I often hike ridges and glacial valleys in the Juneau area and I am dismayed over the number of helicopter flights I see and hear on these hikes. I feel that my backcountry user experiences are greatly diminished by the present number of helicopter overflights. Increasing the number of these flights will compromise other recreation users of the Tongass National Forest. In addition, I would like to see a long-term study of the effects of helicopter noise on mountain goats of the area.

Thank you for considering these comments.

Sincerely,

Deborah Rudis
PO Box 20104
Juneau, Alaska 99802

DRW

RECEIVED
11-17-2001

"John and Dawn
Walsh"
<jwalsh@gcl.net>
09/02/01 08:27 AM
PST



To: <ehall@twenc.com>
cc:
Subject: Juneau Helicopters

Ellen,

I live at 1316 Second Street, Douglas Alaska 99824. I want to start by saying I support tourism and all my friends and neighbors in the industry. My first job in Alaska 21 years ago was at a local tourist shop. However, the industry has changed in the last 20 years. Three cruise ships a day have turned into eight, and 10,000 helicopter landings have turned in to 20,000.

DRW
1

I live on the channel and am affected by the constant noise that comes with the industry. It begins in May and ends in September. Three years ago was especially hard. I had a new infant daughter that could not sleep during the day if one window was open because of the loud buzzing overhead. Making helicopter noises and imitating them were one of the first things she learned. Cute...but sad. That same year I had a plane crash in the water right in front of my house after clipping with a helicopter. The occupants were immediately killed. Now not to say that would not have happened if there were less helicopters flying, but it does indicate the congestion in the sky above Juneau. This hit too close to home and to this day frightens me.

DRW
2

Again, I support the industry, however I believe it must be controlled just as many of the other industries are in Alaska.

Thank you,
Dawn R Walsh

DRW
3

Dorothy S. Wilson
2355 Ka-See-An Drive
Juneau AK 99801
907-789-5600 (W) 907-789-0492 (H)

DW
RECEIVED
6/4

September 3, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 19th Street, Suite 200
Bothell WA 98011

Re DEIS Helicopter Landing Tours on the Juneau Icefield 2002-2008

Dear Ms. Hall:

We have lived in Juneau Alaska since 1968. Our two children grew up here and Juneau is our home. Although we are owners of Coastal Helicopters, I can assure you that my concern for the beauty of the Juneau Icefield and the ability to live harmoniously with our neighbors is very important to us.

In reviewing the DEIS Alternatives, I found that none of them are perfect. I do find the exclusion of flying ANY day of the week unacceptable. To dis-allow glacier landings on any day for the companies who do only tours, is tantamount to telling a business when they can work. That option is not reasonable to me.

DW
1

Alternatives F & G, while not perfect and may be a little "blue sky," do offer businesses the opportunity to plan and grow. To ask a business to stop trying to grow and to "maintain" current levels goes against the principals of a free economy and against the reason for going into business. A business that is not growing is deteriorating. There is no such thing as a stagnant business.

DW
2

The Juneau Icefield belongs to all U. S. citizens. Many tourists are infirm or simply to do not have the stamina to hike to the Juneau Icefield. The only way for them to enjoy this beautiful National Forest is by flying to it. To walk on it requires landing by a helicopter. Please don't deprive our citizens of that privilege.

DW
3

While you are approving Alternative F or G, we are also requesting that you look again at the Antler Glacier Lake wildlife buffer requirements. If you visit that area you will find that many people with private aircraft fly there and land. The animals habituate to their environment. I don't believe Antler Lake wildlife has been bothered by private aircraft and people landing there. I don't believe wildlife will be harmed by controlled landings by helicopters whose pilots watch for litter and are concerned for the safety of animals.

DW
4

Thank you for the opportunity to comment on this DEIS.

Sincerely,

Dorothy S. Wilson
Dorothy S. Wilson

EBGM

REC'D SEP 25 2001

To: <ehall@fwenc.com>
Cc: <cavlar@alaska.net>
Subject: helicopter EIS

09/25/01 06:58 PM



It really is a matter of quality of life. It is unbelievable that a chosen few can impact so many of us. Let's face it, we get to listen to this all day long so a handful of people (with money) can be thrilled for an hour? This is not an amusement park! We live here and we like to hike in the mountains to get away from it all. But wherever we go, we are surrounded by helicopter and airplane noise. I wonder how Ethel and Mac from Iowa would like to have this noise in their backyard all summer. Moving the landing areas is not a solution to the problem. It will be a great excuse to increase the flights. Decreasing the flights to a reasonable level is the only solution. Please consider this carefully and let's be fair. A person who's home is here should have more say-so.

Elizabeth Babich
Gunter Nath

2501 Channel Drive
Juneau, Alaska 99801
344 4643
586 6045

EBGM
1

EBGM
2

EBGM
3

EC
RECEIVED

To: <ehall@fwenc.com>
Cc: <cuadra@gci.net>
Subject: Fw: Comment on DEIS, Helicopter Landing Tours, Juneau Icefield 2002-2006



Looks as if I got the email address wrong the first time I tried to send this.
-----Original Message-----
From: cuadra@gci.net <cuadra@gci.net>
To: shah@fwenc.com <shah@fwenc.com>
Date: Monday, October 01, 2001 4:07 PM
Subject: Comment on DEIS, Helicopter Landing Tours, Juneau Icefield 2002-2006

Dear Ms. Hall: 10/1/01

Here are my comments on the DEIS on Helicopter Landing Tours on the Juneau Icefield 2002 - 2006. I reside in Juneau, in the Mendenhall Valley.

I would be grateful to receive a copy of the final EIS and Decision document, and hope the FEIS will include an analysis of the comments that were received.

Thank you.

Elizabeth Cuadra
cuadra@gci.net

COMMENT ON DEIS, Helicopter Landing Tours on the Juneau Icefield, 2002-2006

I and my family live in our single-family home in the Mendenhall Valley and have lived here for over 20 years.

We ask that the Forest Service adopt Alternative B, reducing Icefield landings to the 1994 actual use number.

EC
1

But you could modify Alternative B such that the flying day ends at 8 pm instead of the earlier time in Alt. B. A very important point is to reserve one weekend day when there are no flights allowed under these permits. One day of relative quiet is one thing Juneauites have been strongly requesting.

EC
2

The Forest Service has an excellent legal "handle" through the conditions it can place in the permits. Failure to abide by the permit conditions should result in loss of the permit. Look into this thoroughly and think outside of the box. Thoroughly use the powers you have through permit conditions.

EC
3

A major reduction in the number of flights permitted would also serve toward increasing flight safety. There would be less demand for helicopter pilots, too many of whom have come here without adequate training or experience to know not to fly into a whiteout, for example. Fewer aircraft in the air at one time would also increase flight safety, by decreasing the chances of a midair collision. (Think "Grand Canyon.")

EC
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I applaud the City's study of alternate sites for heliports. Flight paths (even corridors that can be agreed upon) are, to some extent, unavoidably tied to the takeoff and landing points available. (Remember this when you decide where to locate landing sites on the Icefield.) But the two potential new lowland sites that have surfaced as a result of the City's study will induce a great deal of ground traffic, which has to pass by and through residential areas, to get the clients to these heliports. That ground traffic (mostly buses) will bring its own noise, congestion, and fumes - most unwelcome to those residential areas. Reverting to the 1994 numbers of flights: (Alt. B) will help to limit the amount of such impact. In fact, it is hard to imagine any new sites that could be reached by surface transport without passing through residential areas. The single possible exception is if people were taken by boat from the cruise ship area to the new heliport site. I have not studied whether that would make a water traffic congestion problem at the harbor and beyond; but if it does, again reducing the number of helicopter landings to the 1994 level should go a long way toward reducing/limiting the problem.

We in this household are friendly toward the helicopter ice field tours. We have been clients of two of the companies, and enjoyed the experience very much. One summer, my daughter even worked for one of those companies, and enjoyed it very much. But enough is enough - and we are now at the point of way too much. I have even had guests arrive from out of state who, after a day here, express how disappointed, even appalled, they are by the incessant helicopter noise in the Juneau area on a summer day. They, too, are tourists!

I experience and observe all this as one who has spent 20 years of her professional career as an engineer working on community noise problems and their prevention, especially the problems caused by aviation activities. When the people in a community express so much a problem they are having with noise, the problem is real, no matter where in the composite noise scales (Ldn, NEF, CNR, California's CNEL or what have you), the problem is real and has already gone way too far. The background noise levels in Juneau are way below those of a place like the Los Angeles basin (permeated by vehicle traffic noise), and thus the noise of each overflight is more annoying here, and the numerical value on the Ldn scale to expect annoyance is closer to 55 than to 65 (a number the FAA picked assuming metropolitan settings and jet airports).

By the way, background noise level has not been measured correctly if the ear can hear single events rising above the "blur" or if a paper trace (recording instantaneous noise levels continuously) shows any peaks rising above the straight line that represents background noise level. A noise level measurement purporting to represent background levels will be erroneously high if it is contaminated by such peaks. My point is that you (and everyone else involved) should thoroughly examine any so-called background noise level figure presented to you, to see if they were measured correctly and really do represent "background noise." The amount that a single-event noise level rises above the background is crucial to the level of annoyance. So is the fraction of time during the day that these events occur (hence, the composite noise scales such as Ldn).

Please feel free to contact me if any of this needs clarification, or if I can be of any help.

Sincerely,

Elizabeth Quadra

P.O. Box 33878, Juneau, AK 99803-3878

Email: equadra@gci.net

Phone: (907) 789-2084

List of relevant publications I have authored or co-authored during noise control work:

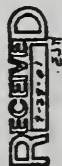
- "Aircraft/Airport Noise and the Courts," a chapter in "Handbook of Noise Control," McGraw-Hill (2d ed. C. Harris 1979)
- "Legal and Institutional Analysis of Aircraft and Airport Noise and Apportionment of Authority among Federal, State and Local Governments," U.S. Environmental Protection Agency Rpt. NTID 7312 (task force chairperson and editor)
- Council of State Governments, "Working Paper for the Noise Legislation Workshop," National Symposium on State Environmental Legislation, Washington, March 1972 (federal co-chairperson and author); see Suggested State Legislation, 1974 for resulting model law.
- "Regulation of Transportation Noise in the United States," invited paper, Southampton Symposium on Transportation Noise, 8th International Congress on Acoustics, London, July 1974; reprinted in 43 J. Sound and Vibration 449
- "Supporting Information for the Adopted Regulations for California Airports," Wyle Laboratories WCR70-39; Final Report to the California Dept. of Aeronautics, Jan. 1971 (co-author and program manager)
- "Community Noise and its Prevention as a Public Health Measure," commissioned by the Task Force for Development of a California State Plan for Health, California Dept. of Public Health, Sept. 1970
- "Final Report on the Home Soundproofing Pilot Project for the Los Angeles Department of Airports, and Guide to the Soundproofing of Existing Homes against Exterior Noise, Wyle Laboratories, March 1970 (co-author and program manager)
- "Interactions of a Shock Wave with an Entropy Discontinuity," presented at AFOSR - UTIAS Symposium on Aerodynamic Noise, Toronto, May 1968
- "Acoustic Wave Generation by Entropy Discontinuities Flowing Past an Area Change, 42 J. Acoustical Society of America 725 (1967), based on M.S. thesis

TEMSCO HELICOPTERS, INC. P.O. BOX 5057, KETCHIKAN ALASKA 99901-0057

EDE

KETCHIKAN: (907) 225-5141
 FAX: (907) 225-2240
 PETERSBURG: (907) 772-4760
 SKAGWAY: (907) 983-2309
 JUNEAU: (907) 789-9601

Ellen Hall
 Foster Wheeler Environmental Corporation
 12100 NE 195th St Suite 200
 Bothell, WA 98011



Re: DEIS-Helicopter Landing Tours on the Juneau Icefield -2001-2002

Dear Ms. Hall:

As an employee of Temsco Helicopters for the past five years, I fully support Juneau's helicopter operators in their desire to provide continued access to the Tongass National Forest's Juneau Icefield and recommend the District Ranger select either Alternative "F" or "G" in the DEIS.

These alternatives provide continued access the Juneau Icefield and allow for a small amount of growth for businesses that rely on continued access to this resource. These alternatives also provide a level of employment security for those of us who depend on the survival and economic vitality of Juneau's helicopters businesses.

If either of these alternatives is not selected, it will be another step to constrict one of the last remaining employment options in all of Alaska. This is troubling to my family including my Grandfather Ken Eichner, who is a sixty plus year resident of Alaska, and the founder of Temsco Helicopters. When it was decided to set up helicopter tours in Juneau the goal was to offer an opportunity for people without the ability or the means to visit the Juneau Icefield in a very safe and special way. It would be a shame to deny this world wide group of people that option and limit the use of this area to a select few individuals that are able to do so without the aid of a helicopter.

Finally, as someone who works in Juneau's visitor industry I want to express my appreciation for the opportunity to live and work in the Tongass National Forest. Thank you for the chance to comment on this DEIS.

Sincerely,

Eric D. Eichner

Eric D. Eichner
 Chief Pilot
 Temsco Helicopters
 PO Box 5057
 Ketchikan, AK 99901
 907-225-5141
 E-Mail belopro@ptialaska.net

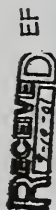
EDE 2

EDE 3

EDE 1



"Scott and Betsy
 Fischer"
 <fogdymt@alaska.net>
 To: <ehall@fwno.com>
 cc:
 Subject: helicopter landings on Juneau Icefield
 09/06/01 09:54 AM



I support helicopter tours on the Juneau Icefield by local flightseeing companies in Juneau. I have been involved with several different companies since the beginning of helicopter flightseeing in the early 1980's, when Bob Engelbrecht was with Temsco Helicopters. Several of our winter employees hold down summer jobs with helicopter companies, and we appreciate having highly qualified, responsible locals available to work for us during the winter months. I have travelled extensively by foot on the Juneau Icefield since 1973, including two Atlin to Juneau crossings and one east-west crossing from Twin Glaciers to the Mendenhall. I think the opportunities the local companies provide are exciting, not only to the tourists who bring much needed economic growth to our community, but also to the local people, both young and old, who benefit in so many ways from these dynamic and growing local businesses.

I support continued, managed growth of helicopter landings on the Juneau Icefield.

Thank you--
 Elizabeth F. Fischer
 2301 Meadow Lane
 Juneau, AK 99801
 registered voter
 resident since 1972

EF 1

"Peter M
Griffin/R10/USDAPS"
<pgiffin@fs.fed.us>
08/22/01 02:02 PM
PST

To: "Laurie Thorpe/R10/USDAPS" <lthorpe@fs.fed.us>
<ethall@twenc.com>
cc:
Subject: Re: Helicopter Landing DEIS / EIS Boundary

Additional comments following up Mr. Hinkley's earlier e-mail comments provided to both of you. I also have a "Draft Citizen's alternative" by Karla Hart given to the CAB Assembly. I imagine we'll see it in official comments on the DEIS. Her testimony at the Assembly meeting covered several issues: noise as a factor in human health, disruption of children's learning ability, decline in property values and local people moving out of Juneau in the summer to avoid helicopter noise (the latter two were lumped in economic impacts of helicopter tourism). Peta

Pete Griffin
Juneau District Ranger
Tongass National Forest
(907) 790-7443

----- Forwarded by Peter M Griffin/R10/USDAPS on 08/22/01 12:59 PM -----

"Everett
Hinkley"
<pgriffinefs.fed.us>
To: "Peter M Griffin/R10/USDAPS"
cc: <ehinkley@gci.net>
Subject: Re: Helicopter Landing
DEIS / EIS Boundary

08/21/01
07:54 PM

Pete,

If what you say is true, then why is my neighborhood not noted in the following paragraph from Chapter 1 - Significant Issues?

"The noise of helicopters during flights could(?) affect the quality of life for residents in the following areas: Mendenhall Valley, vicinity of Fred Meyer, Auke Bay, Herbert River Road, Juneau Airport, Lemon Creek, Back Loop Road, West Juneau, Gastineau Channel, Thane Road, Bonnie Brae, and Fritz Cove Road areas. Current complaints from residents have common themes regarding the specific aspects of the noise generated from the commercial helicopter flights."

I live at 3.5 mile N. Douglas Highway, which is not in West Juneau nor in Bonnie Brae (the only areas on North Douglas that are specifically noted in the section above). My neighborhood on N. Douglas is one of the most heavily impacted areas in town, and my quality of life is severely impacted.

I live my life in the summer according to the cruise ship schedule. I generally don't go home until late in the evening on heavy "passenger days".
I have noise cancelling headphones that I wear IN the house. I find reasons to go in to town or out to the valley just to find some semblance of sanity on heavy flight days. I love Juneau and I love working for the Forest Service, but I'm beginning to question whether it's all worth it. I've lived in several major cities that are quieter than Juneau in the summer.

This may all be a question of semantics, but people on the "pro flightseeing" side use the precise wording to draw their lines in the sand. I don't want to see my quality of life further degraded because I let sloppy wording pass by under the radar.

One other note. There are dozens of landings outside this boundary every day of the summer, since ERA is located on Douglas Island outside the EIS boundary.

With regards,

Everett

----- Original Message -----
From: Peter M Griffin/R10/USDAPS <pgriffinefs.fed.us>
To: Everett Hinkley <ehinkley@gci.net>
Cc: <ethall@twenc.com>; <lthorpe@fs.fed.us>
Sent: Monday, August 20, 2001 9:43 AM
Subject: RE: Helicopter Landing DEIS

> The study area "boundary" only roughly delineates the zone in which
> helicopter landings are contemplated. We have no proposals for landings
> outside that boundary. We recognize that the EFFECTS of flight noise
> extend beyond these boundaries and they are displayed. Pete

> Pete Griffin
> Juneau District Ranger
> Tongass National Forest
> (907) 790-7443

> Everett
> Hinkley
> To: pgriffinefs.fed.us
> cc: ethall@twenc.com,
> ehinkley@gci.net, lthorpe@fs.fed.us
> Subject: RE: Helicopter
> Landing DEIS

> 08/20/01
> 09:21 AM

RECEIVED
12-1-01

September 17, 2001

EJD

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothwell, WA 98011

We wish to be on record as opposing any increase in permitted helicopter landings on the glaciers near Juneau, AK. In fact, due to the current unbearable noise level from helicopters we favor a reduction from the present number permitted. Based on what we can determine the current draft EIS has completely failed to take into consideration the impacts of helicopter noise on the citizens of Juneau. Juneau is and always will be the point of departure and return for such tourist flights. Failing to consider this in the EIS is an egregious omission. The Forest Service position seems to imply that noise impacts on wildlife is important and worth considering, but human beings don't count! To say the Forest Service doesn't have the authority to consider the effects on the people of Juneau is simply a "cop out"!

We strongly urge you to consider something like alternative (B) which would produce an approximate 30% reduction in the number of landings taking place and provide for a couple of days per week without the ever present "hammering" of those machines overhead.

Sincerely,

Ellen Dennis
Jan Dennis

Eldon and Jan Dennis

Mailing address: P.O. Box 20070, Juneau, AK 99802
Residence: 5955 Thane Road, Juneau, AK

> Pete,

> I am writing to express a strong concern as a private citizen and
> resident of Juneau (and Douglas Island). I have been reviewing the
> draft EIS for helicopter landings and I noticed to my dismay that
> Douglas Island is outside the EIS Boundary. How can this be? Was this
> a mistake? Douglas Island is perhaps the area in Juneau most heavily
> impacted by helicopter traffic.

> I look forward to your response.

> Regards,

> Everett

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EJD
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EJD
2

EJD
3



Everett Hinkley
<ehinkley@gsd.net>
09/23/01 12:21 AM

To: ehall@fwenc.com
cc:
Subject: DEIS Comments / Helicopter Landing Tours on the Juneau Icefield
2002 - 2008

ES#
RECEIVED
F-60

Dear Ms. Hall,

Please find attached my wife and my comments regarding the DEIS for the Helicopter Landing Tours on the Juneau Icefield 2002 - 2008.

I am a Forest Service employee, however, the attached document reflects my position on this issue as a private citizen.

With regards,

Everett Hinkley
Juneau, Alaska



- Helicopter DEIS Comments.doc

Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

September 22, 2001

Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041 pgriffin@fs.fed.us

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011 ehall@fwenc.com

RE: Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

ES# 1
I believe that the Draft Environmental Statement (DEIS) on Helicopter Landings fails to adequately identify and address issues important to Juneau residents: noise, economics, safety, and irreplaceable and irreversible commitment of resources. I therefore believe that until these issues are adequately addressed, the Forest Service should reduce the numbers of permitted icefield landings (see summary statement for preferred alternative).

ES# 2
I would like to preface my examination of the DEIS with a few excerpts from a recent Forest Service document entitled "Alaska Region Strategic Priorities", dated May 10, 2001. From the "Visions of the Future" section:

ES# 3
"We (the Forest Service) will work to create a future where communities adjacent to Alaska's national forests believe that the U.S. Forest Service is doing everything within its power to work with communities to help them achieve community goals, manage change, and improve their quality of life."

By permitting additional helicopter landings in the Juneau Icefield, you are permitting additional noise impacts, which will further reduce the quality of life of the citizens of Juneau who have the misfortune of living under the current flightseeing routes, which as it turns out, includes most Juneau residents.

From the Strategy section:

ES# 4
"We (the Forest Service) will bring governments, industry, communities and organizations together to plan the future growth in recreation and tourism before use becomes a problem."

Sorry folks, the growth of recreation and tourism is already a well-acknowledged problem in this community. It is time for the Forest Service to recognize its contribution to the existing noise problem, and to take steps to address that problem. I therefore ask the Forest Service to honor its pledge to "bring governments, industry, communities and organizations together" to solve this problem of flightseeing noise, now that it is a problem.

I would now like to discuss several key points, which are pertinent to the EIS decision-making process following public comment.

Everett Hinkley

Page 1 of 7

Safety:

The Forest Service is responsible in part for the safety of the tourists who take the local flightseeing flights. It is time that the Forest Service recognized its responsibility to tourist safety. I urge the Forest Service to use its influence in the permitting process to dissuade the operators from flying in marginal weather. The Forest Service should meet with the FAA and the flightseeing operators to forge a firm framework of operation, which is geared to maximizing the safety of the paying public. The often inclement weather is frequently used as an excuse to throw flight guidelines (including "fly friendly" guidelines) out the window, at the expense of local residents. The operators should be reminded that the best way to insure the safety of the aircraft and its passengers is to cancel the flight and stay on the ground. It is very difficult to crash a parked helicopter.

Noise impacts:

Cumulative Impacts - When considering the impacts to residents, the noise generated by helicopters cannot be evaluated fairly without including the cumulative impacts of fixed wing AND helicopter noise. The Forest Service must consider this cumulative impact in its environmental review. North Douglas, Thane, the downtown area, and other residents throughout the town of Juneau thus suffer from multiple simultaneous impacts, of which helicopters are often the major contributor. The noise levels experienced by residents in many parts of town are unacceptable at current levels of flightseeing traffic.

Is the ability to use public airspace for private gain a right or a privilege? A growing number of U.S. citizens are gaining an understanding that the airspace above our neighborhoods and city is a public resource, access to which is a privilege that carries the responsibility to act in a manner that respects the broad public interest. The use of resident's airspace at the expense of their quality of life has never been taken into consideration when the rights of the operators and tourists are discussed and fiercely defended. Despite the half-hearted efforts by the helicopter operators to "fly friendly", they have demonstrated that they are incapable of achieving acceptable noise levels over our neighborhoods. In spite of their best efforts, the noise remains a problem, and permit actions that convey them their privilege must take that into account.

At a minimum, a permit decision by the Forest Service should seek to minimize flightseeing operations from ERA's present location and to provide incentives for moving the daily flight operations to an alternate heliport, which minimizes residential impact. The ERA facility in North Douglas has evolved, without public comment or zoning review, into the most significant negative environmental factor in North Douglas (as evidenced by the growth in actual flights cited in the EIS and the special mention given to ERA in the CBJ noise study). The flight volume from this facility has doubled since 1994! Any EIS that ignores this obvious fact misuses the point of conducting an environmental assessment in the first place.

Seasonal permitting vs. daily permitting - Helicopter landing permits should be issued on a per day basis rather than a per season basis to limit the disproportionate impact of noise on fair weather days. The averaging of flights over an entire tourist season paints an inaccurate picture of the true nature of this business on days when the weather is favorable for flights. The intensity of activity in many areas of Juneau is intolerable during peak flight times. Daily limits such as those proposed by Karla Hart in her recent Citizens Alternative presented to the CBJ assembly is a far more reasonable and equitable approach.

The Draft EIS acknowledges both the noise and safety problems that come from permitted helicopter landings on the icefield. By permitting this activity, the Forest Service is triggering these impacts. The permitted activity causes noise impacts not only to residences and the wildlife, but also to our immediate backcountry. It is virtually impossible to enjoy a hike on the Juneau

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Everett Hinkley

Page 2 of 7

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trail system, or a walk in our park, without the presence of flightseeing noise pollution. It is the Forest Service's responsibility, through its permit decisions, to mitigate this situation.

Irretrievable and Irreversible Commitment of Resources:

The Draft EIS discusses and dismisses the concept of "irretrievable and irreversible commitment of resources". I firmly believe that the loss of time devoted to natural quiet, the loss of residential property values, and the loss of income by other businesses due to flightseeing to be resources that are irretrievably lost. These factors must be acknowledged and evaluated in the EIS.

Economic analysis:

I understand that tourism is an important cornerstone of our local economy. No one is arguing that point, however, tourism needs to be sustainable and of a high quality. An economic analysis of tourism in general and flightseeing in particular must recognize that a decision to allow current levels or increased levels of permitting has minimal added benefits and large costs and those must be fully evaluated and disclosed. The Draft EIS in current form does not have an adequate economic analysis.

The contribution of the helicopter flightseeing industry is grossly overstated in the DEIS, which does not even bother to report figures, but rather gives vague references which carry no authority. There is a brief statement in Chapter 3 page 1 that asserts that tourism is important and that even though much money goes to cruise lines, the wages and money for supplies that would stay in Juneau would be "substantial". How much is substantial?

As an educated guess, since I have no actual numbers to go on (nor does anyone outside of the flightseeing operations), most of the income from helicopter flightseeing goes to the following areas: fuel, insurance, aircraft lease/purchase costs, aircraft and facility maintenance and cruise ship commissions (30-35% of the cost of a flightseeing ticket). Some of the remaining money goes to salaries for a very small number of people, many of which are seasonal only. ERA's bookkeepers live in Anchorage (ERA's headquarters) and the rest of the operation runs on a shoestring. Many of the people who work for the operators do live and shop in Juneau for at least a portion of the year. Another paltry portion of their gross income goes to local sales tax. The operators benefit from a loophole in sales tax law, which does not charge sales tax on the flight portion of the ticket, only the value added parts of the tour. The flightseeing operators escape local sales tax on the flight portion of the fare in spite of the fact that the flights depart and return to the same locality. The remaining portion of the gross income presumably goes as profit to the business owners. Only two of the four operations are local operations (the two larger outfits aren't local), so presumably most of the net profit from this high impact activity actually leaves town. I'm not sure how this rough analysis shows a "substantial" contribution to the local economy.

The DEIS fails to address any economic costs of the flightseeing noise to our local economy, only the positive impacts are alluded to. There are many reports of locally owned and operated tourism-related businesses, in various parts of the borough, that are being adversely impacted due to current levels of flightseeing. Outdoor services and Bed & Breakfasts are among those who report that their clients complain about the noise associated with flightseeing. Tourists who come to Juneau, both independent tourists and those on the cruise ships, also value peace and quiet. They come to Alaska wanting and expecting that quality of experience. Reduced safety margins and decreased quality of tourist visits due to inclement weather also have costs, which cannot and should not be ignored.

The June 2001 issue of Smithsonian Magazine has an article entitled "Cruise to Alaska", which paints Juneau in an unflattering light from the perspective of the cruise ship passenger.

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Everett Hinkley

Page 3 of 7

Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

"The number of ships has led to a common cruise ship-port of destination conflict. Juneau is Alaska's capital, but it's a small town of roughly 30,000 people. When several thousand tourists rush ashore each summer day, intent on getting something Alaskan out of a nine-hour visit, they have an impact. They have changed the waterfront into a froth of jewelry and trinket shops, and have filled the sites with helicopters."

Is this the image we want to offer to our valued tourist? People don't need (or want) to travel to Alaska to see Disneyland.

The DEIS "Purpose and Need" section (page 1-9) states,

"The purpose and need for the Proposed Action are to meet public demand for quality, outfitter-guided services that provide safe helicopter access to remote locations on the Juneau Icefield. Meeting this demand includes providing for visitor safety and an appropriate balance between commercial, guided recreation opportunities and noncommercial, nonguided recreation opportunities while minimizing impacts to people and resources."

I interpret this to mean that this decision is making an allocation to those uses in the landing areas (the ice field) and that there will be costs ("minimizing impacts to people and resources"). My contention is that the decision must be made after a cost analysis and disclosure of costs to the broader tourism based economy and to the residents of Juneau.

Errors of Omission:

The following omissions show that the contractor who compiled the DEIS document lacks a firm understanding of the social and environmental dynamics in and around the city of Juneau:

1. Why is Douglas Island OUTSIDE OF THE EIS BOUNDARY? The residents on Douglas Island are perhaps the most highly impacted of any group in Juneau. Please address this oversight in the final EIS.
2. Why is Benjamin Island outside of the EIS Boundary? This is an important haul-out for the sea lions, and overflights should not be allowed.

The current situation in Juneau

If I were to be asked to describe the current situation in Juneau during the tourist season, I would respond as follows: Currently, the residents of Juneau are living in an environment that is akin to a war zone. During the over-fleeting tourist season, the local residents are subjected to nearly continuous overflights of helicopters and floatplanes for 10 to 12 hours, 7 days a week! The tourist season has grown in recent years from 124 days to 153 days, despite deteriorating weather conditions which begin in early to mid September, and without input or guidance from the local residents. There are very few places in town that you can go to to escape the noise.

The Forest Service is currently a supporting partner in the high impact activity of flightseeing, and it is time for this support to be thoroughly re-evaluated. It is time for the operator's sense of entitlement to end, and time to start changing the basic way in which this business is operated. This business has previously been operated with the frontier attitude, i.e., that it's a free ride and "the sky's the limit", with no responsibility for their actions and impacts. At the present, there is no balance in this business. There is no balance in the flight paths, none in the flight guidelines, and none in the total flight volume. Everything favors the business side of the equation at the expense of the local residents.

Points for the Forest Service to consider:

1. The flightseeing operators are not entitled to ANY landings on the icefield. The landing permits should be issued only after the true impacts of these landings are understood and addressed. If we cannot obtain truly objective studies (noise, economic, etc.) to determine these impacts, then the permits should not be issued until unbiased studies are conducted. Let anyone forget, objective studies form the basis for a Record of Decision that is fair and equitable to all parties. The EIS process is not a rubber stamp to give businesses what they want regardless of the many negative impacts.
2. The Forest Service purports that people from around the country and around the world have the right to view the Juneau Icefield up close and personal. They have the right to access the icefield, but not the right to diminish our quality of life by traversing the airspace over our homes in order to exercise their right. I challenge the Forest Service to think outside the box and to develop new ways to satisfy the tourist's need and right to visit the icefield.
3. The constant noise is impacting the residents along the current flight paths, more so than anyone involved in the permitting process is willing to admit. The impacts to residents take many negative forms; loss of property values, reduced quality of life (inability to enjoy our own yards), negative impacts to health, both mental and physical. The impacts to health are clearly documented in the literature by studies in the medical journals, and given nothing more than lip service in the DEIS.
4. Flightseeing flights are not a necessary part of the Juneau economic infrastructure. Yes, they do contribute to the economy, but unlike point-to-point transportation flights or life-flights, the local residents would not suffer unduly if they disappeared completely. I am not advocating this drastic measure, I'm only asking for long overdue balance. The flight-seeing flights are nothing more than one form of entertainment, presented to our local visitors as a touring option, while in town. To paint them in any other light, i.e., as a keystone of our economy, is patently dishonest, especially when considering their potential contribution to the local economy.

The Forest Service can do its part in returning our quality of life by:

1. Treating the landing permits issued to the operators as a privilege rather than an entitlement, and issuing the permits on that understanding.
2. Punitively rescinding permits to operators who are responsible for fatal accidents on icefield flightseeing tours, and/or who are found to stray from established flight routes and "fly friendly" elevations on a regular basis. Start monitoring flight tracks with GPS. It's easy, and it's cheap. Ask me, I know how.
3. Restricting the various operators to specific routes to and from the icefield landing zones. Eliminate the Salmon Creek return route!!
4. Reducing the total number of landing permits via Alternative B or the Citizen's Alternative.
5. Give more than lip service to the development of alternative heliport sites. Work with the city, the operators and the FAA to make this a reality. I've offered my expertise and know-how (in sling analysis) to the District Ranger in the past, and nothing has been done. Do not grant additional flight routes or landing sites to the flightseeing operators. The operators have enough already. Let's leave some of the icefield to those intrepid visitors who go to the icefield on foot.
7. Cap the landing permits given to each operator on a "per day" basis rather than a "per season" basis. This request is based on two issues:
 - a.) the huge variation in actual flights per day that we experience during the flight season (not discussed in the DEIS), and
 - b.) the dilution of flightseeing impacts of the various DEIS alternatives (per Alternatives spreadsheet 2-1) using the meaningless figure, "average landings per day".
 Averaging seasonal flights on a per day basis waters down the flightseeing impacts, and the per day averages are further watered down by using an unobtainable number of flying days (153 days).

Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

In recent years, the tourist season has grown from 124 days to 153 days. Though the season's length has increased markedly (to the dismay of local residents), the actual number of flyable days has not increased appreciably, and remains closer to 124 days than 153 days. The true length of the flight season, and the number of actual flying days is governed almost entirely by our inclement weather. Using a longer tourist season to divide an increased number of flights, results in a watered down, per day flight average which appears more palatable to the public.

Without a per day flight cap, the actual flights per day (for Alternatives C, D, E, F & G) will be exponentially higher due to the actual number of flyable days in the flight season. It is well known to any resident with good hearing that the flights do not space themselves out evenly throughout the season nor throughout the day.

8. Give preference to locally owned flightseeing outfits. That simple act will provide a bigger boost to our local economy than increasing landing permits to all operators.

Summary:

1. I have no patience for the dissembling statement echoed many times throughout this DEIS document, "Flightseeing-only tours (helicopter tours that do not land on NFS lands) are outside the jurisdiction of the Forest Service and would most likely still occur, even if no landings are authorized." This is a non-scientific conclusion based on speculation, and has no bearing on the Forest Service's responsibility in issuing permits. There is no point in supposing what the operators might do or how their business model would evolve in the absence of permitted landings. To state this so many times in the DEIS (3 by my count), comes off as a veiled threat in support of the operators and their right to "grow their business". Or, "you might as well go along with increased landing permits, they're going to fly anyway." The purview of the Forest Service in this case, is to effect decisions within the scope of your responsibility.

2. The Forest Service can serve the citizens of Juneau best by issuing flight permits on a per day basis rather than a per season basis. It is possible to conduct flightseeing activities in a manner that is far less intrusive and costly to residents of Juneau. This change will not occur without regulatory actions that force changes that are not forthcoming from the operators themselves. These changes will take a concerted, coordinated effort by the Forest Service, the CBI, and the FAA, in cooperation (or without the cooperation) of the operators. Until these changes are forthcoming, I request a dramatic reduction in icefield landing permits.

4. I favor the Citizens Alternative submitted by Karla Hart (see addendum). Since I know that the Forest Service will dismiss the Citizens Alternative outright, I reluctantly give a second nod of approval to Alternative B.

If I can summarize my comments in one statement, Get the flightseeing helicopters away from residential areas!!

Thank you for your consideration.

Everett Hinkley,
Full time resident of Juneau Alaska
/s/ Everett Hinkley

Sandy Hinkley
Full time resident of Juneau Alaska
/s/ Sandy Hinkley

Submitted September 22, 2001

Everett Hinkley

Page 6 of 7

Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

Addendum

Draft Citizens' Alternative - presented to the CBI on 8/20/01 by Karla Hart

Number of landings: 11,881 (1994 actual use level)

Hours landings can occur: 8:30am-6:00pm

Days per week landings can occur: Sunday - Friday (6)

Maximum number of landings per day: 128

Landing locations: Same as now, no new areas

Flight paths: designated "good" and "poor" weather routes for each company, if these routes are not flyable at minimum altitudes required, flights are cancelled for that period of time until routes are safely flyable at minimum specified altitudes.

Other items: same as alternative B

Key features explained: One purpose of a limited permit system is to ensure the quality of an experience and minimize impacts. The maximum number of landings per day would ensure a maximum amount of noise associated with landing tours each day. Like Peck Creek and other areas with limited permits, if you are not able to visit on the day of the permit, it is lost. The 93 landings per day were determined by dividing the 1994 actual use by the 128 landing days authorized.

The designated flight paths will give some predictability to locals on where to expect to find what aircraft on what type of day. With each operator having designated flight paths it will eliminate operators searching for routes on less than optimal days and increase safety for clients. On days when helicopters are darting in and out of clouds while flying up the channel one might also expect that some of the passengers would rather have had their money back than fly. In fact, the 1999 McDowell survey for helicopter operators found that clients were much more satisfied with their experiences on sunny days than rainy.

By having a maximum number of flights per day, helicopter operators could lease or otherwise secure just the number of aircraft required to serve that known peak number. This would mean less aircraft standing by on slow days and less pressure to keep building numbers.

There is no ramp down time with this alternative because citizens have been asking for noise reductions from the operators (and help in securing from the CBI) for years. Noise relief is needed NOW. Many of the aircraft used by operators are leased rather than owned so cutting back fleet sizes should not be a big hardship. Further, the two largest companies have operations elsewhere that might absorb some of their aircraft. Employees are largely seasonal - a cutback might simply give passengers a better chance of having a more experienced pilot, mechanic, glacier guide, etc.

Everett Hinkley

Page 7 of 7

RECEIVED FB

August 9, 2001

Frank Bergstrom
PO Box 457
Gardiner, MT 59030

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

RE: Helicopter Landing Tours on the Juneau Icefield 2002 - 2006 DEIS

Dear Ellen Hall:

The following comments are submitted relative to the above referenced DEIS.

Alternative F is a reasonable compromise between icefield preservation and commercial exploitation. Specific reasons supporting a preference for Alternative F are provided below.

1. No irreversible or irretrievable commitments of resources would occur (p. 4-28).
2. The research/educational expeditionary experience enjoyed by JIRP would be reasonably protected.
3. My wife and I are two of the "handful of other individuals, not associated with the Juneau Alpine Club, [who] participate in ice and snow travel/trekking activities on the Juneau Icefield." (p. 3-5). We have crossed from Camp 17 to Atlin as a team of two, and enjoyed the wilderness experience. I seriously doubt that experience would be greatly marred by the additional flightseeing use.
4. For the past two years I have lived outside, affording a comparison between commercial use of the Tongass and Gallatin forests. Tourism commercial use in the Gallatin forest is widespread and common. Many trails are used almost exclusively by horse guides. In comparison, Tongass commercial use - under Alternative F - is minimal. The Tongass should not be singled out for defacto preservation to the exclusion of needed local commercial activity.

- 2 -

August 9, 2001

Other issues not associated with Tongass land use are:

5. Juneau needs the tourism industry, and the Tongass is the obvious local tourism resource. Juneau must promote growth in that industry to remain a vibrant community.
6. I lived, worked, and played in Juneau for 12 years. Aircraft noise impacts are unavoidable. Given the local dependence on air travel, it is unreasonable to expect life in a Southeast Alaska community to be noise free. Some urban impacts are inextricable from urban living.

Thank you for the opportunity to comment on this important DEIS.

Sincerely,

Frank Bergstrom

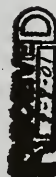
Frank Bergstrom



"Frank Jensen"
<f.jensen@tjwnc.com>
08/08/01 03:13 PM
MST

FJ

To: "Tim McDonnell" <Tim_McDonnell@TemscoAlr.com>, "Tim Cudney" <eradenall@mtaonline.net>, "Chuck Johnson" <cjohnson@eraaviation.com>, "Lash Lerew" <rlashew@eraaviation.com>, "Chris Maggio" <SkG.Staff@TemscoAlr.com>, "Joe Hicks" <halopro@ptialaska.net>, "Andy Thomas" <Andy_Thomas@TemscoAlr.com>, "Bob Engelbrecht" <engelbrecht@alaska.com>, "Amy Wildred" <erjuno@alaska.net>, "Mark Wilder" <Mark_Wilder@TemscoAlr.com>
cc: "Ellen Hall" <ehall@twnc.com>, "Peter M Griffin/R10/USDAFS" <prgriffin@fs.fed.us>, "Joe Corrao" <joe.corrao@rotor.com>
Subject: 1.) Thanks for Hospitality and 2.) USFS EIP on Juneau Icefield



Priority Please!!!

1.) Many thanks to each addressee for the hospitality shown to me during my recent trip to Alaska. The helicopter tours were most impressive, and there is obvious and highly professional emphasis on safety throughout the helicopter tour operations and related activities. This includes the ground crews, guides, maintenance personnel, managers, dispatchers, pilots and all others. I am proud to work with TOPS, and with its top-notch member organizations.

2.) I recently requested, and have just received from Pate Griffin, Juneau District Ranger for the Tongass National Forest a copy of the USDA (Forest Service) Draft Environmental Impact Statement titled Helicopter Landing Tours on the Juneau Icefield 2002-2006.

Without expressing an opinion on the contents, since I haven't studied the document, I must say that its appearance, at least, is quite comprehensive and highly professional. Anyone having an interest in providing helicopter landing tours on and adjacent to the Juneau Icefield is urged to obtain a copy of that document, and to make comments on it.

Such copies should be requested from Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA. Her e-mail address is ehall@twnc.com. On behalf of TOPS, I plan to make some comments on the document, following coordination with TOPS leadership.

Please note that time is of the essence: The deadline for comments is anticipated to be September 24, 2001.

With best regards,

Frank L. Jensen, Jr.

FJ
1

GG



17345 Glacier Highway
Juneau, AK 99801
September 10, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Dear Ms Hall:

Please choose alternative B in the Draft Environmental Impact Statement re: Helicopter Landing Tours on the Juneau Icefield 2002-2006.

GG
1

Some people in the Juneau area are slowly being driven "nuts" by the incessant helicopter and fixed wing airplane noise that is so all pervasive from late spring to early fall. Others leave town during that period to avoid the noise. Any additional helicopter flights would only exacerbate the problem.

GG
2

It seems to me it is a fundamental right for residents to live in their homes, work in their gardens, converse with neighbors, and generally, carry on normal lives without constant intolerable noise.

Alternative B is not the best choice (I prefer a roll-back to mid-1980's levels of helicopter noise and disruption) but it is preferable to the other alternatives, and given the divisiveness surrounding the issue is at least a tolerable compromise.

Thank you for your consideration.

Sincerely,

Gerard Garland
Gerard Garland

GP

REC'D SEP 25 2001

Grace Powers
<grace_powers@ead.s
tate.ak.us>
To: ehall@twenc.com
cc:
Subject: helianding

09/25/01 10:16 AM



I do not think that there should be any more helicopter landings allowed. If anything, I would like to see them scaled back. I also think the tours should be restricted to a couple of different flight paths so that the rest of us can plan a hike and not be subjected to a stream of helicopters. It's too bad that the thunder mountain area is off limits for hikers now but I would rather keep that as a flight path if it would mean preventing other areas from being ruined for hiking.

Grace Powers

GP 1

GRS

RECEIVED
SEP 27 2001

GRSHUMAN1@aol.co
m
To: ehall@twenc.com
cc:
Subject: Glaciers

08/09/01 08:49 PM EDT



Dear U.S. Forest Service:

We recently, along with our three kids and their spouses, enjoyed the helicopter trip with Coastal Helicopters, Inc. to the glaciers and made the landing of a lifetime. My wife and I believe that the glaciers belong to the citizens of the United States of America and that every citizen should have the right to see them and touch them if at all possible. We feel that it is not only spectacular but very educational and wish that every student could have the opportunity that we had. Please don't take away something that our people can enjoy so very, very much.

GRS 1

Sincerely, G. R. Shuman
1044 Mountain Air Court
Reno, NV 89511
Ph: 775-851-0860



Sam Trivette
 <samtriv@gcl.net>
 09/30/01 05:58 PM
 Please respond to
 samtriv

To: ehel@fwenc.com
 CC:
 Subject: Helicopter lands

GT

RECEIVED
 9-27-01

I appreciate the efforts of the USFS to balance the needs of commercial groups, tourists and residents. I am writing from the perspective of a local resident, lifelong in Alaska and 19 years at present location, 7870 Glacier Hwy, near Fred Meyer, and Temaco. Our home predates both of these businesses. My family and I also enjoy hiking on area trails. I worked in the air taxi business for 10 years and stopped just as tourism was beginning to replace other types of commercial flying as a primary source of revenue. I appreciate the need for business owners to make a living but they are doing it at the expense of residents when they produce the constant noise that makes it necessary to keep windows closed on nice days, makes conversation on decks and outdoor spaces impossible and gardening unpleasant. Our neighbors on both sides were unable to sell their homes until after the end of the helicopter tour season. I find myself avoiding spending time in Juneau during the summer because the noise surrounding our home and neighborhood is so wearing. The satellite heliport idea may help alleviate the noise around most residential areas, but I don't foresee them happening soon, if at all. Until, and unless there is a way in place to remove the excessive noise from residential areas, I would urge you to roll back the number of landings on the ice field as far as possible. I can't imagine that visitors enjoy the constant noise any more than residents do. Hiking in our beautiful rain forest with the constant clatter of helicopters overhead makes me feel like I'm in a war zone. Noise is as much a pollutant as smoke or trash. Commercial operators aren't allowed to blow smoke into our air or dump their trash on our streets, and they shouldn't be allowed to fill our air with noise. If it bothers people, who are accustomed to human made noise (to a point), it must really bother all the animals who are only accustomed to natural sounds.

The helicopter companies argue that they contribute to our economy. I would say not to a level that would begin to compensate for the impact on our community. They pay no sales tax, they employ summer workers who take their salaries (no income tax) and leave the state asap.

As far as the tourists are concerned, a tram to walk on the glacier might be a nice alternative to flying there. I don't think the momentary thrill of walking on ice is worth the huge social and environmental cost of getting there on helicopters.

This is the first testimony I have given regarding the helicopter noise issue. After "just living with it" for several years, I would urge you not to increase the number of landings ever again. Keeping them the same is a poor second choice to rolling them back until they have a plan in place to stop the negative impact on the rest of us who live, work and pay taxes here.

Thank you for your work on this issue.
 Gayle Trivette

GT 1

GT 2

GT 3

GT 4

Gordon Warren Epperly
 P.O. Box 34358
 Juneau, Alaska 99803

GWE

September 24, 2001

Ellen Hall
 Project Manager
 Foster Wheeler Environmental Corporation
 12100 NE 195th Street, Suite 200
 Bothell, Washington 98011

RECEIVED

SEP 24 2001

Juneau Ranger District

Dear Ellen Hall

According to our local newspaper, the deadline for submitting testimony on the Helicopter Glacier Tours Draft Environmental Impact Statement (DEIS) was extended to October 1st, 2001, therefore I am sending you my testimony at this time.

I have been observing that several people of Juneau have been requesting that the DEIS extend to areas that is not within the jurisdiction of the United States or its agency, the U.S. Forest Service. These areas are those that lay outside the property of the United States, namely the Tongass National Forest.

There is no question that the United States has been given constitutional authority to regulate aircraft under the interstate commerce clause of the U.S. Constitution, but does that authority extend to the U.S. Forest Service? I think not. If this authority extends to the U.S. Forest Service, then I must ask: At what altitude does the U.S. Forest Service acquire jurisdiction over aircraft that fly over the lands of the United States, 10 feet, 100 feet, or 30,000 feet? The fact is that the U.S. Forest Service has no authority to regulate aircraft unless that aircraft touches the property of the United States that is within U.S. Forest Service's control.

- 1 -

GWE 1

The U.S. Forest Service has been asked by several people to make a finding based upon areas effected that are under the exclusive control of the states or the Federal Aviation Authority [FAA] (*such as aircraft flying over homes, towns, and cities of the State of Alaska*). The U.S. Forest Service has no authority over these areas and therefore these issues should not be a consideration in the final draft of the DEIS.

The U.S. Forest Service acquires jurisdiction only when an aircraft touches the land of the United States. Until that moment, there is no jurisdiction and to try and acquire jurisdiction over other issues (*such as helicopter noise over homes*) exceeds the jurisdiction of the U.S. Forest Service. It appears to me that the only issue under review is the impact made upon the environment when a helicopter lands upon the "ice" (*water*) of a glacier that is within the Tongass National Forest. No other issue is before the U.S. Forest Service as no tour helicopter touches the "land" of the United States.

Sincerely Yours

Gordon Warren Epperly
Gordon Warren Epperly

-2-

HB

REC'D SEP 25 2001

To: Ehall@fwenc.com
cc: Subject: helicopter

John & Heather
Bingaman
<jhbingaman@ecf.net>
09/25/01 11:19 PM



I support the following:

Number of landings: 11,000 per year
Hours landings can occur: 6:30am-6:00pm
Days per week landings can occur: Sunday - Saturday (7)
Days per season landings are allowed: 126
Maximum number of landings per day: 93

Key features explained: One purpose of a limited permit system is to ensure the quality of an experience and minimize impacts. The maximum number of landings per day would ensure a maximum amount of noise associated with landing tours each day.

Heather W. Bingaman
Juneau, Alaska

HB 1

GWE 2

HS
COMMENT FORM
Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name HAKEN SATVEDT
 Address POB 810091
 City, State, Zip AK 99501
 e-mail address HAKEN@AOL.COM
 Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

The EIS Process ☒

chuck craig
 <chuck.craig@us.af.mil>
 ka.edu>

To: ehall@fwenc.com
 cc:
 Subject: helicopter flight plan

09/24/01 02:55 PM



Ms. Hall,
 I think it's a good idea to limit the number of helicopter landings on the Juneau Icefield. Let's not ruin Juneau for the locals by providing unlimited tourism. Besides the limit on the number of landings, I would like to comment on the flight patterns, especially those flights to Herbert Glacier and/or heading north. As a resident of Tee Harbor I have noticed an increase of air traffic this summer and it is getting annoying. I would think that flights heading north could fly out in Lynn Canal close to Shelter Island instead of directly over our heads in the northern part of Tee Harbor. (We live at 20 mile Glacier Hwy.) It seems that flights are "cutting corners" and instead of flying over the water, they are flying directly over residential areas. I hope you will stipulate to flight operators to avoid flying along the coastline and get out to sea, an easy option since there aren't any homes on the Northeast side of Shelter Island.

Sincerely,
 JoAnne Craig
 P O Box 32166
 Juneau, AK 99803

JAC
 1

John & Dianna Hebert
870 So. La Paz Road
Maricopa, AZ 85239
(520-) 424-9838
(520) 424-9346 (fax)
hebegebees@hotmail.com

September 4, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

RE: DEIS - Helicopter Landing Tours on the Juneau Icefield - 2002-2006

Ms. Hall:

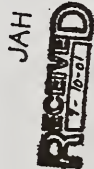
I am currently employed by Coastal Helicopters for the summer and look forward to returning to Juneau in the Summer of 2002 for more tourist-oriented employment.

For me and others in the Tourist Industry to continue employment, on a seasonal basis, it is dependent on my employers ability to land on the Juneau Icefield. I therefore recommend that the District Ranger select either Alternative "F" or "G" in the DEIS.

There is nothing I would rather do every summer than share my state with visitors. Please allow continued access to the Juneau Icefield so many more people can see and appreciate this beautiful place. Thank you for the opportunity to comment on this DEIS.

Sincerely,

John A. Hebert



JAH

JB

Jim Bentley
3311 Nowell Ave.
Juneau, AK 99801

Ellen Hall

Foster Wheeler Environmental Corp.
12100 NE 195th St. Suite 200
Bothell, WA 98011

Aug. 20, 2001

In response to the DEIS HELICOPTER LANDING TOURS ON THE JUNEAU ICEFIELD 2002--2006:

I have lived in southeast Alaska for 32 years, most of that time in Juneau, my wife for 51 years, and the changes during that time have been considerable. Some of those changes have been good, some not so good. Perhaps one of the most notable changes (not so good) has been the substantial increase in tourism since about the mid eighties, and the associated problems of crowds, traffic, a glut of souvenir shops, cruise ship smoke, and the light aircraft traffic. As a result, the quality of life here in Juneau is, as far as we're concerned, going down the tube.

Having said that, I will get down to the subject at hand. I'm glad to see this DEIS finally put out for review. I must say that I am somewhat surprised and disappointed that the forest service is unable and/or unwilling to stand up to the tourism industry. I say that based on their Proposed Action Alternative E, which I consider to be absolutely unacceptable.

My chief concern regarding this DEIS is the effect of the various alternatives on the area wildlife, and secondary is the effect on we who live here. At least we can have some control on these problems of our own making. The wildlife, on the other hand, either must become "habituated" or perhaps move to other habitat. I do not believe for one minute the statement in the DEIS on page 2-35 that states that all of the alternatives "would have a negligible effect on black bear, brown bear, gray wolves, bald eagle,....." For one thing, as you well know, it is not uncommon for these helicopter flights to be conducted during periods of relatively inclement weather, oftentimes for several days running. We live in west Juneau overlooking Gastineau Channel and have witnessed numerous flights that would possibly qualify as IFR flying conditions. There is no way that the alleged 1,500 ft. wildlife buffer can be maintained under those conditions. As it is, the so called monitoring program for compliance with the minimum clearance of wildlife areas is very weak, and I question it's oversight ability.

I also question the variations in recommended clearances for different species. If it's an eagle it gets 1,329 ft., a goat gets 1,500 ft., and a sea lion gets 3,000ft. Is the science of habitat avoidance really this precise? And if the critter is none of the above, what do they get? On the other hand, up on the ice field at camp 10 and 18 they get five miles. You can see who has the ear of the forest service, and it sure as hell isn't the wildlife.

Fifteen years ago it appears there were perhaps 4,000 helicopter landings per season up on the ice field. Now we're looking at 16,000 plus, with a proposal to go to 18,000, a four or five fold increase in fifteen years. And that doesn't include the added flights to support their operations with supplies and personnel. The result is something in the order of 34,000 to 39,000 trips (up and back) per season. And the forest service says that the wildlife, from tide water to the 4,000ft. elevation, can cope with this level of intrusion; become "habituated". Is

JB-1

JB-2

JB-3

RECEIVED
2003-07-21

Jack Cadigan
<ccco@alaska.com>
09/24/01 11:14 AM

To: ehall@fwenc.com
cc:
Subject: Ice Field Helicopter Landings



I am aghast that the Forest Service is even considering reducing public access to the ice fields. There is NO conceivable environmental damage to federal lands, and the move to reduce landings appears solely driven by those who only want Juneau for themselves, and their own selfish enjoyment. These are NATIONAL lands, and belong to ALL citizens.

JCa 1 Only Alternatives F and G make any sense at all!

Jack Cadigan
3199 Pioneer Avenue
Juneau, Alaska

JB 3 (cont.)
this supposed to represent our best effort to manage and preserve what used to be the beautiful and remote back country areas that used to exist above Juneau. Back in the seventies and early eighties I used to backpack up as far as Mt. Olds from either Mt. Roberts or Mt. Juneau, also up on Heintzleman Ridge, and I recall a couple of trips up on Blackberry Ridge. The presence of aircraft, particularly helicopters, was rare. It was truly a marvelous experience. I don't do that anymore due to my age and a hip replacement that won't hold up to the physical requirements. Perhaps it's just as well. With the current level of aircraft activity, I can just imagine what it would be like anymore.

JB 4
We're going in the wrong direction on this issue. I firmly believe that we should, as a minimum, limit the icefield landings to the actual 1999 level of 16,708 (Alternate C) or, more preferable, reduce number of permitted landings to a level of about 12,000 (Alternate B).

JB 5
Nor can I endorse expansion of new landing areas into that portion of the study area that is currently off limits. Spreading the landings to new areas does not alleviate the current problems; it just moves those problems to somewhere else. But the basic problem is still there and we haven't accomplished anything. I am adamantly apposed to any permitted landings whatsoever within the Antler or Lace River drainages. We should never open that area to commercial operations of any sort. It should come as no surprise that I also question the proposal to introduce snow machines to the icefield. This isn't Disneyland for heavens sake.

JB 6
Mr. Griffin asks the reviewer of this DEIS to point out what is acceptable or unacceptable with each alternative. Well, Alternative A should not even be listed in my opinion, but I suppose that some well meaning bureaucrat, way back when, figured that we might just as well start off the DEIS process with the ridiculous and work our way through to the other extreme of outrageous.

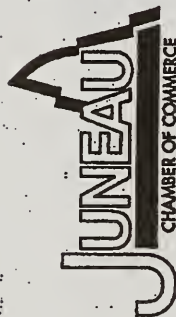
JB 7
Alternative B, in my opinion, makes the most sense. It comes the closest to addressing the existing problem of too much noise, disruption of wildlife habitat, and the loss of the peace and quiet we used to have before we were blessed with the dubious benefits of the cruise ship industry. For the past three days the cloud cover here has been at approximately 1,000 to 3,000ft. elevation, which shifts the flight path of the helicopters to the middle of Gasteneau Channel. This is not an uncommon situation. As far as I'm concerned, the noise is tolerable, but I certainly do not want to see an increase in noise or traffic.

JB 8
Alternative C, I could live with. Like Alternative B, it maintains the boundaries of operations to the 1999 limit. And, like Alternative B, it prohibits the proliferation of the so called "minor developments", including snow machines.

JB 9
Alternates D through G, in my opinion, are not appropriate. They each, to varying degrees, allow the expansion of the number of landings, and areas of operation, to the point of the blatant self serving greed as illustrated in Alternate G.

That is the sum of my comments on the DEIS. I appreciate the opportunity that has been provided.

Sincerely,
Jim Bentley
Jim Bentley



JCC
3100 Channel Drive, Suite 300 • Juneau AK 99801
(907) 463-3488 • Fax (907) 463-3489

RECEIVED
JUN 27 2006

JUNEAU CHAMBER OF COMMERCE RESOLUTION
IN SUPPORT OF GROWTH ALTERNATIVES 'F' AND 'G'

AS CONTAINED IN THE DRAFT ENVIRONMENTAL IMPACT STUDY FOR
HELICOPTER LANDING TOURS ON THE JUNEAU ICEFIELD 2002-2006

WHEREAS, the Juneau Chamber of Commerce is organized to support and sustain the orderly development of business and commerce within the boundaries of the City and Borough of Juneau, and

WHEREAS, the four companies doing business in Juneau providing helicopter transportation services are essential partners in the business community, and

WHEREAS, the U.S. Forest Service has commissioned an environmental impact study of the impacts to the Juneau Icefield with respect to helicopter landings, and

WHEREAS, helicopter flightseeing in Juneau employs hundreds of local residents and contributes substantial revenues to the local economy without negatively impacting the environment, and

WHEREAS, the Juneau Economic Development Council has determined that Juneau wages have decreased by approximately 9% in the last decade, and

WHEREAS, tourism is one of the few growth industries in the Southeast Alaska region, and

WHEREAS, the Juneau based helicopter businesses have consistently invested time and money to adapt their operations to respond to community concerns on a voluntary basis, and

WHEREAS, the Juneau Icefield and National Forest lands belong in common to all United States citizens and given the stated priority of the Forest Service to use such lands for recreation, all U.S. citizens should enjoy access to same, and

WHEREAS, environmental education and stewardship of the land are key components of Juneau Icefield tours, and

WHEREAS, helicopter tours allow individuals of all ages and levels of physical ability equal access to the glaciers in question, and

WHEREAS, air tours are the most ecologically appropriate way to view and appreciate this wonder of nature, as confirmed in the Draft EIS which does not identify any negative impacts that can be attributed to flightseeing activity, and

WHEREAS, business opportunities for flightseeing are directly related to the ability of these same companies to provide other commercial services and search and rescue and medivac opportunities that would otherwise not be available to the residents of Southeast Alaska, and

THEREFORE, BE IT RESOLVED THAT:

The Juneau Chamber of Commerce fully supports both Alternatives "F" and "G" in the EIS process because

1. Both of these alternatives provide for reasonable growth, and as a result of this growth opportunity, more individuals will enjoy the access to the Juneau Icefield and communicate the message of good stewardship of this world-class resource to the greater populations on the United States and other countries around the world, and

2. These alternatives provide an incentive for investment in new technology and facilities to address the noise issue.

This resolution was adopted unanimously during the Board of Directors meeting held on Thursday, September 13, 2001.

Jamie Parsons, Executive Director

Juneau Chamber of Commerce

Judy Cronstadt

<Judy@JuneauCronda
hly.com>

To: ehall@iwenc.com

33

Subject: Draft Plan for Helicopter Landings

09/18/01 10:10 AM

Dear Mr. Hall:

I urge the Forest Service to adopt Alternative B for helicopter landings to reduce the number to 1994 levels. The level allowed in 1994 was sufficient that people were beginning to be affected by the noise and find it objectionable; since then the flights have increased with more people being adversely affected as the number of landings increased each year.

Helicopter companies say they should be allowed to increase their business each year. These companies use a local resource (wilderness) to provide a product (helicopter flights) not used by a single local resident (McDowell Group, 1999). While the McDowell Group report stated that "the revenue staying in Juneau to pay wages and salaries and to purchase supplies would be substantial," it does not say how much. It must be recognized that much of the "wages and salaries" (a redundant phrase) does not stay in Juneau but leaves with the temporary pilots at the end of each season. Therefore, the only conclusion one can reach is that a great many residents suffer negative impacts for a benefit of undetermined size that is realized by many fewer residents.

One alternative being considered by the City and Borough of Juneau to mitigate the noise of helicopter flights is to develop satellite heliports. While the Forest Service has no jurisdiction over the placement of these facilities nor much of the flight route, it is unlikely that any heliport could be developed that would not negatively impact some residential areas. Furthermore, with the uncertainty of the tourism industry after the events of September 11, 2001, it is unlikely the private companies would be interested in committing funds to develop new facilities until they know how future business will be impacted. And if private money is reluctant to invest in these new facilities, public money should definitely not be used. Consequently, even if alternative heliports did mitigate some of the impacts of helicopter flights, it is unlikely they will be developed anytime soon.

No business can grow without using more resources (in this case creating more noise in more places), or using the same resources more intensely (creating more noise in the same areas). This industry has already grown beyond the point I find tolerable. Please do not allow any growth beyond the 1994 levels.

Thank you.

Judy Crondahl
626 Fifth Street
Juneau, AK 99801

Judy Crondahl
Crondahls Bed & B
626 Fifth Street
Juneau, AK 99801
Phone: (907) 586-
Email: Judy@Junea

Email: Judy@JuneauCrondahls.com

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REC'D SEP 25 2001

EP 25 2001

COMMENT FORM

JCS

Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name John C. Stead

Address 14224 82nd Ave. C.S.

City, State, Zip Detroit, MI 48204

Would you like to be added to the Helicopter Landing Tours EIS mailing list?

☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

The ELS Process

The Alternatives

Alternative A

Alternative B

Alternative C

Alternative B

Alternative E
Alternative F

Significant Issues

Noise Impacts to Residents

Noise Impacts to Recreationists

Impacts to Wildlife

Plots in New Areas

Economic Uses

My Comments

HANDS FLAID HERE TO DRAWING FOR 6 YEARS AND SEEMT NO
DAMAGE TO THE PLACES OR CHANGE IN AVERAGE ANGLE OR
CHARACT, IT WOULD BE A SIMILAR TO UNDER THE PLATE CARDS
BY MEANS TO REMIT OR NO ANY WITH THE PLATE FOR
BUTHE DRAWINGS TO FIND THESE THE ANGLES OF THE PLATE,
WIND BE A DRAWING TO WITH THIS CARDS FOR, DO NOT
WIND OR NO ANY WITH THESE GEORGE CARDS.

Over...

JDH

To: ehall@wrnco.com; Laurie Thorpe/R10/USDAFS@FSNOTES
cc:
Subject: [Fwd: Comments]

Peter M Griffin
08/28/01 07:30 AM

Comments on DEIS

Pete Griffin
Juneau District Ranger
Tongass National Forest
(907) 780-7443
— Forwarded by Peter M Griffin/R10/USDAFS on 08/28/01 07:28 AM —

Jeff Hoover
<jeff_hoover@labor.ak.us>
cc:
Subject: [Fwd: Comments]
08/27/01 08:18 AM

Your first e-mail address came back as returned e-mail, so I'm trying again.

----- Original Message -----
Subject: Comments
Date: Mon, 27 Aug 2001 08:52:59 -0800
From: Jeff Hoover <jeff_hoover@labor.state.ak.us>
Organization: Alaska Department of Labor and Workforce Development
To: petergriffin@fs.fed.us

To the Forest Service:

This e-mail is our comments on the proposed helicopter landings in the Juneau Icefield. Our family of four lives in the Montana Creek subdivision and we are greatly affected by the helicopter flights over the west Mendenhall area. Excessive noise from many helicopters does affect our semi-rural neighborhood.

We do not mind the current level of flights, but we are proposed to large increases in the number of flights. I have briefly seen the list of flight alternatives and I think the annual increases should be limited to 2 percent a year, not a 30 percent increase. Also, the hours of operation should be more limited as we believe 8 am to 8 pm, 7 days a week is a MAXIMUM level.

The Mendenhall glacier and valley should be place for all people to enjoy and we believe large increases in flights puts the helicopter interests above the interests of the residents. Reasonable increases (2 % a year) in capacity would be acceptable. Thank-you for the opportunity to comment. Jeff and Diane Hoover

Subject: Comments
Date: 08/27/01
From: jeff_hoover@labor.ak.us
Organization: Alaska Department of Labor and Workforce Development
To: petergriffin@fs.fed.us

JG
COMMENT FORM
Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name John Conrad
Address 1160 Glacier Hwy AK
City, State, Zip Anchor Bage AK
e-mail address stark@bce.galaxy.com

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☐
Alternative G ☐
Significant Issues ☐
Noise Impacts to Residents ☐
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☐
Impacts in New Areas ☐
Economic Uses ☒

JG 1

My Comments I fly daily to the glaciers. I agree
in the years I have flown in JUN (91,92,94,01)
that the animal populations seem
to be the same or larger (goats, bears).
I take a lot of people to the glaciers
and unfortunately they don't have a good
over...

My Comments

to comment on their experiences.



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JGSC

September 30th, 2001

To: Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
Via hand delivery

Ellen Hall

Foster Wheeler Environmental Corp.
12100 NE 195th Street, Suite 200
Bothell, WA 98011
Via E-Mail and via U.S. Postal Service

Re: Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

Dear Mr. Griffin:

The following comments on the Draft Environmental Impact Statement for commercial tour landing permits on the Juneau Icefield are submitted on behalf of the Juneau Group of the Sierra Club (JGSC). JGSC was formed over 30 years ago to advocate for the conservation and protection of public lands in S.E. Alaska. We are a member group of the national Sierra Club, a conservation organization with over 700,000 members and a history of involvement in public land issues in S.E. Alaska stretching back for over a hundred years. Members of JGSC have been involved in the icefield landing EIS process since the first scoping meeting was held. We have written letters, attended hearings, and participated in the failed mediation process. Our organization also appealed the District Ranger's decision to extend the 1995 EIS into the 2001 season.

It is evident from the level of controversy over this issue that the District Ranger faces a difficult decision and that a probable outcome of that decision will be that no party is entirely satisfied. Therefore it is essential that the DEIS include all the information necessary for the Ranger to make an informed decision and for the interested

public to comment on and understand the basis for that decision, even if they disagree with it. It is also essential that all necessary information pertaining to the alternatives' compliance with TLUMP standards and guidelines be included. JGSC's comments will begin with a partial list of information we believe should have been compiled and included in the DEIS.

Section One: Additional information that is needed for informed decision making.

- 1) Lack of data on total amount of flightseeing activity. There is no quantification of the impacts resulting from non-landing flightseeing activities or other unregulated aircraft flights on Forest Service and Non-Forest Service lands. Cumulative impacts resulting from the alternative's permitted landings cannot be assessed without knowledge of the number of other flights they are being added to.
- 2) The DEIS fails to disclose the ROS designations for the LUDs. Recreational Opportunity Spectrum designations can vary within or between Remote and Semi-Remote LUDs. The DEIS does not provide information on what the ROS designations are or what their boundaries are within the project area. This information is essential if reviewers are going to be able to assess the alternatives' compliance with TLUMP guidelines.

- 3) Information regarding the number of landings that have occurred or that will be likely to occur for each landing site is missing from the DEIS. What is occurring on the icefields? Why doesn't the DEIS present a simple table listing the number of landings that have occurred at each of the landing sites? Information on how many actual landings have taken place at each landing site is essential information for both the deciding officer and the reviewing public. This information should include both the daily average and the numbers for the highest use days. Does the deciding officer even have this information? If not how can the officer possibly make an informed decision? Also of note is that the DEIS has stated that "multiple landing tours are counted as one

landing tour because it involves only one round trip flight from and back to the helibase" and that "many of the helicopter companies have offered flightseeing landing tours with ...multiple landings" (DEIS A-2). TLUMP Standards and Guidelines do not mention multiple landings but only the amount of landings allowed per site on a daily basis. The DEIS should reflect this and present accurate information on the number of landings that actually occur which are evidently much higher than the DEIS would lead us to believe have actually occurred.

- 4) Information regarding the location of enclaves currently permitted and the amount of use they are receiving is not in the DEIS. While there is information on the requested sites for minor developments, the DEIS maps do not give the location of currently permitted enclaves and there is no data on the amount of daily use they were permitted for or that they actually received. This data is also lacking for the alternatives where various levels of enclave use are suggested.

- 5) Information regarding the numbers of flights occurring per day is inadequate. The information on actual and proposed flight seeing numbers is given in terms of the average number of permitted landings per day that actually occurred or are proposed during the months of permitted activity. As the operators are being permitted on a seasonal basis they have been able to carry out a basically un-limited number of flights on sunny days, making up for flights missed on days when the conditions were adverse. A proper assessment of cumulative impacts and compliance with TLUMP Standards and Guidelines has to take into account the full range of daily activities that is occurring during the permit season. What is the number of flights that are occurring on the heaviest use days for the icefields as a whole? Are Standards and Guidelines being exceeded on some days because of the ability of the operators to allocate the permits they have obtained as they see fit? There is no data in the DEIS on this subject. What are the impacts to other recreational users on Juneau's rare and treasured days of good weather? The Forest Service needs to include data that quantifies the effects of granting permits on a seasonal

rather than a daily basis and then use this data to project the likely results of the permit levels suggested in the DEIS's various alternatives.

- 6) Information on impacts to other recreational users. While the DEIS notes that flightseeing noise is an issue for virtually every trail and backcountry area from Echo Cove to Taku Harbor, there is no data on the use these areas receive from both guided and un-guided non-motorized use other than the admittedly anecdotal evidence presented in DEIS Table 3-1. Evidence systematically collected in 1995 by the Juneau Parks and Recreation Committee suggests that the data in this table severely underestimates the use that Juneau's trails receive (Juneau Parks and Recreation Comprehensive Plan, July, 1996). That noise impacts to quiet non-mechanized recreation use is one of the most significant issues the DEIS must cover is borne out by the number of scoping letters the Forest Service has received on the subject. Attached as Exhibit A are excerpts from a portion of these letters. Without data on the levels of non-motorized use that various recreational areas receive, it is not possible to assess the impacts that will result from the alternatives with their associated permit levels and flight paths. JGSC believes that at a minimum, a months worth of trail head surveys, taken over the course of a permit season, quantifying use and soliciting comments on noise associated impacts, should be conducted as part of this NEPA process. Additionally, the DEIS needs to attempt a quantification of the amount of other recreational use that has already been displaced by commercial flight seeing activity. The fact that there are people who curtail their backcountry recreational use because of flight seeing noise impacts is borne out by the scoping letters in Exhibit A. This quantification could be accomplished through a survey of user groups and their memberships.

- 7) Additional Information on Flight Path Use Patterns. The DEIS does not provide information on how many flights will be using each of the various routes to the icefields under the DEIS's alternatives. This information is needed to assess the effects, both direct and cumulative, to neighborhoods and highly valued local use recreation areas.

- 8) Additional Economic Data. The DEIS makes no effort to quantify or list the potential negative economic impacts resulting from flight seeing activities. There is anecdotal information that property values have decreased in heavily noise impacted areas. The Forest Service could contact recent sellers of homes and inquire if flight seeing noise played any part in their decision to sell their house, the price they asked for it, the amount they received, or the timing of their decision to put their property on the market.

There is ample evidence that other backcountry users are curtailing their recreational activities within CBJ boundaries (see item 5 and exhibit A). This could have a significant effect on economic interests associated with these activities, including non-motorized commercial guiding operations. What is the cost associated with having to travel ever farther distances to find remoteness? Are flightseeing activities affecting their ability to attract new or repeat customers? Owners of businesses that offer non-motorized remote tour opportunities should be questioned about the impacts to their businesses from the activities of the flightseeing industry.

The DEIS must do a better job of quantifying the positive economic benefits that result from permitted icefield landings. Actual prices for the various tours should be given and an actual amount of total revenues calculated for past season's activities. How much of the revenue stays in the local economy as opposed to that which is spent outside the area after seasonal workers leave? An estimate such as the one used in the DEIS does not provide the level of accuracy needed for informed decision making.

Section Two: Adherence to TLUMP Forest-wide Standards and Guidelines for Recreation and Tourism.

In many respects compliance with the Forest Plan can only be attained or assessed by collecting critical information. The lack of data noted in Section One of these comments pertains directly to the ability of the Ranger to make an informed plan compliant decision and the ability of the public to review that decision. JGSC will

reference those items as we list our concerns in regard to the TLUMP Standards and Guidelines.

Criteria for Authorizing Outfitter/Guide Operations

The DEIS quotes minimally and selectively from the TLUMP Standards and Guidelines in the Purpose and Need Section (DEIS 1-20). While more detail is provided in the DEIS appendices there is still a lack of discussion of how the DEIS alternatives relate to the Goals and Objectives of the Land Use Designations and the management prescriptions provided to guide the Ranger District's decisions. The DEIS is very prompt in citing the Guidelines in TLUMP that require the Ranger to work with industry in identifying and developing services and opportunities for recreation and tourism, and JGSC recognizes that providing these recreational opportunities for visitors is an important consideration when regulating commercial use on National Forest Lands. However we do not believe that the Ranger is obligated to respond to an ever increasing, artificially created demand for services, especially when that demand is being created by the aggressive selling and pre-booking of tours by the cruise ship industry. TLUMP sites public need as the criteria, not industry created demand. What should be of equal importance to the Ranger in this process is the public need for quiet recreation on Forest Service lands. There are other more specific criteria that the Ranger is instructed to consider that are not so well covered in the DEIS. We will discuss them in some detail below.

Also of note is the DEIS's assertion that all enclaves contemplated in the alternatives are minor developments and since minor developments can occur in Remote Recreation LUDs then enclaves also can occur in them. JGSC disputes this assertion. There are specific standards regarding numbers of landings per day in a Remote Recreation LUD and in this regard enclaves are not permitted unless the Ranger can make a case for an exemption on a site specific basis. As there is a semi-remote Recreation LUD already in the area where it is permissible to have enclaves it is hard to imagine what rationale the Ranger could use to justify extending the permitting of enclaves into the rest of the project area.

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1) Recreation Use Administration. Item REC 122 II 4 d) (2) (b), TLUMP 4-41. This criteria reads that operations can be authorized if "Existing or proposed operations and activities are appropriate for the specific ROS settings within the Land Use Designation." As noted in Section One, Item 2, the DEIS does not state what the ROS spectrum designations are for the project area or their boundaries. This is a flaw in the DEIS that needs to be corrected, but JGSC will assume for the purpose of this discussion that the designations are some combination of the Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized ROS designations, and that they are in conformity with TLUMP's stated objectives for Remote and Semi-Remote LUDs. TLUMP (3-63) states that for the remote recreation LUD the Ranger should "manage recreation and tourism use and activities to meet the levels...indicated for the Primitive Recreation Opportunity Spectrum class." For Semi-Remote LUDs TLUMP similarly prescribes that the "Semi-Primitive ROS designations" be applied. Assuming this is generally the application that the Ranger District has applied to the LUDs within the project area, JGSC believes some of the DEIS's alternatives, i.e. C, D, E, F, and G, violate TLUMP ROS guidelines for most of the Forest Service lands where landings are permitted or an excessive number of over flights are occurring.

The intent of having these ROS guidelines at all is to give National Forest users a level of certainty in regards to the kind of experience they can expect when using the Nation's public lands and to ensure that the Forest Service "Provide(s) a broad spectrum of outdoor recreation opportunities in accordance with the existing capabilities of the National Forest as indicated by the ROS inventory, and in accordance with the ROS guidelines at the end of this section" (TLUMP 4-42, item III A.). TLUMP also defines the ROS setting indicator "Remoteness" in III B 3 as "Remoteness concerns the extent to which individuals perceive themselves removed from the sights and sounds of human activity." Under this setting indicator of the ROS class guidelines the Semi-Primitive Motorized designation says "Nearby sights and sounds of

human activity are rare...". Under the Primitive ROS class the setting indicator says "No or infrequent sights and sounds of human activity are present." This ROS setting must certainly apply to the Gálkey River, which is designated as a Wild River, and should receive the maximum protection from over flights that the Ranger can provide it. For other areas that are inventoried as having a Primitive ROS setting there is a large body of evidence that the guidelines are being consistently ignored, due to the high level of outfitter/guide operations being permitted currently by the District Ranger. This evidence includes not only the large number of scoping comments raising the issue of solitude and remote recreation (the lack thereof), but is also borne out by the information contained in the DEIS table 3-5.

ROS designations are also designed to deal in a more specific manner with the frequency of social encounters and the size of the other parties users may meet during these encounters. Though close encounters with helicopters and other aircraft are not specifically mentioned under the social encounter setting indicator it is doubtful that the writers of TLUMP's Standards and Guidelines intended to exclude close encounters with hovering or over flying helicopters on National Forest lands from its guidelines for social encounters. If the intent of TLUMP and the ROS spectrum guidelines is to be met, JGSC believes a minimum distance from trails and popular recreation areas needs to be established for non permitted flight seeing and aviation operations as they have been for permitted operations. When this buffer area is entered into by aircraft, the Ranger should consider that as a social encounter under the TLUMP Standards and Guidelines.

2) Item REC 122 II 4 d) (2) (e). This criteria for authorizing outfitter/guide operations states "Adverse impacts to popular or highly-valued local areas with outfitter/guide operations are minimized." The District Ranger has not collected the necessary information to ensure that this criteria is being met. As noted in Section One, Items 4, 5, and 6, accurate information on the use levels of the various trails and recreation areas, the numbers of those users who perceive themselves as being adversely impacted, and quantitative

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information on impacts to individuals and areas that result from flightseeing over flights under the various alternatives is lacking in the DEIS. Table 3-1 does not provide the level of accuracy needed and does not differentiate between local use and use by visitors. Establishing buffers around some trailheads doesn't protect more than a small fraction of any of Juneau's highly valued recreation areas. It does not constitute a significant effort to comply with the criteria. Surveys need to be carried out to establish use levels and to rank Juneau's trails and recreation areas for the value users place on them. Each alternative then needs to be individually assessed for its impacts to the most highly valued of these areas and substantive measures taken to minimize impacts resulting from outfitter/guide operations.

3) Item REC 122 II 4 d) (2) (e). This criteria states: "The operations can be carried out in a manner that is compatible with existing or expected use by the non-guided public." It is obvious from the scoping record (see Exhibit A) and from comments made at public meetings, that the non-guided users of recreational areas below the flight paths of permitted outfitter/guide operations are shocked and dismayed by the amount of flightseeing related noise they experience while recreating. Criteria 4 d) (2) (e) is designed to protect local existing recreational use even when that use is in a development LUD such as the Cowee-Davies Roadless Area. The Ranger is obligated under this criteria, as he is under Item III A (provide a broad spectrum of outdoor recreational opportunities...), to seek compatibility when he balances conflicting uses, yet the majority of the DEIS's alternatives perpetuate or exasperate a situation that is already severely out of balance. Indeed it is evident from the issues section of the DEIS, where virtually every neighborhood and recreational area from Echo Cove to Taku Inlet is listed as being impacted by flight seeing noise, that the broad spectrum of recreational opportunities Juneau's residents expect is in jeopardy of disappearing altogether.

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- 4) Item REC 122 II 4 (3) (b) (ii). "Semi-primitive ROS settings outside of wilderness: Party size should generally be limited to 12-20 people. Within...Semi-Remote Land Use Designations, larger party sizes may be allowed in limited locations for up to 15% of the primary use season for nature-based interpretive activities if physical site conditions can tolerate it." The DEIS lacks the basic information necessary for reviewers to assess the degree of compliance being followed in regard to this guideline. (see Section One, Items 2, 3, and 4.) How many parties of what size have landed at the various sites currently permitted in past seasons? Does the Forest Service even know? Are the party size guidelines of 12-20 being followed in the Remote Land Use Designations? Are they being exceeded for more than 15% of the time in the Semi-remote LUD's? The DEIS needs to do a better job of providing and presenting information on current and proposed flightseeing activities under Forest Service jurisdiction.

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(cont.)

Section Three: Cumulative Impacts

The DEIS's cumulative impacts section lacks the data needed for informed decision making.

NEPA states that "Cumulative impact" is the impact on the environment which results from the incremental impact of action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

It is acknowledged in the DEIS that non-landing flight seeing operations have increased over the lifetime of the previous EIS, but the only attempt to quantify this increase is to cite the overall increase in cruise ship passengers coming to Juneau. There is no attempt to estimate what the total amount of flight activity taking place over the project area might be, or what proportion of the total activity is made up of flights associated with the permitted icefield tours this DEIS is regulating. Without this

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information, or any accurate information on the numbers of users potentially impacted by the cumulative aircraft activity in the project area (see Section One, Item 5), it is not possible to fulfill NEPA's purpose of ensuring "that environmental information is available to public official and citizens before decisions are made and before actions are taken." NEPA then goes on to say "The information must be of high quality." (1500.1 (b)). JGSC believes that the information that is contained in the DEIS does not meet this standard. JGSC believes for this reason and because of the lack of critical information noted under numerous items in Section One of these comments, the DEIS is rendered inadequate and pursuant to NEPA 1502.9 (a) "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." JGSC requests that a supplemental DEIS be prepared. This SDEIS should include the missing data and analysis we have noted in Section One of these comments.

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(cont.)

Section Four: Range of Alternatives

A) Items dropped from consideration

- 1) Forest Service Designated Flight Paths. While the Forest Service does not have the authority to absolutely regulate flight paths for aviation activity, they are obligated under NEPA's CEQ regulations to consider reasonable alternatives even if they are outside of the Forest Service's jurisdiction (NEPA 1502.14 (c)). JGSC disputes the Forest Services claim that designating flight paths would not decrease impacts but only shift them (see discussion under Item 2), and requests that such an alternative be developed.

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Several of the alternatives establish landing restrictions around trailheads, buffers over trails, and in their effect limit intrusions into other areas. If the Ranger has the authority or leverage to impose these restrictions as a condition of Forest Service landing permits on the Icefields, does he not by extension have the same power to impose conditions over a larger area that will in effect

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establish quite zones over an entire trail system or recreation area? Do not these conditions in their effect actually function to designate flight paths? Wouldn't limiting the number of landings in a certain area, such as the Herbert Glacier, also limit the over flights associated with the routes that will be taken to access the site? JGSC believes the Ranger does have the tools to both establish no fly zones and to limit flight paths in regard to permitted operations. We also believe that within Forest Service jurisdiction the Ranger has other tools that he can utilize that to encourage adherence to designated routes for both permitted and non-permitted flightseeing operations. When the Ranger assesses the impacts of his decision to grant a certain level of permits he is obligated to take into account the impacts resulting from over flights to Forest Service and non-Forest Service lands that exist under the probable flight paths. He is obligated to consider these impacts from both permitted flightseeing alone and cumulatively with non-permitted flightseeing. When the conditions the permits were granted under change, for instance, if the flight path identified by the operator as his probable route to the permitted landing site is not being adhered to on a consistent basis, then it is within the authority of the Ranger to re-assess the level of permits granted to that operator for that site. JGSC believes it is also within the Ranger's authority to develop an alternative that is based on objective criteria that assess total noise impacts to highly valued recreation areas and neighborhoods. The level of permits would be tied to these criteria. A consequence for exceeding the criteria could be that a operator would no longer be permitted to conduct landing operations at the site associated with the flight path that has produced excessive impacts to the area below it. Alternatively, the permit level for an operator could be reduced for a particular site for the following season if the criteria are exceeded.

- 2) **Tours Concentrated in One Area.** We disagree with the contention that any consolidation of landing sites or restriction of flight paths only shifts impacts but doesn't mitigate them. It is obvious that some routes leading onto the Juneau Icefields pass over fewer residences or recreation areas than others. A

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route up Taku Inlet for instance, over flies fewer trails and ridge tops than most other routes. A route from the airport over Thunder Mountain impacts considerably fewer residences than a route up Blackberry Ridge. Concentrating the tours into a smaller area also preserves a higher degree of multiple use on the icefields as an added benefit. The issue of preserving some of the more readily accessible areas of the Icefields for quiet recreation seems to have been lost in this DEIS.

The Forest Service's decision to drop consideration of these options for alternative development has severely limited their ability to address through the DEIS's alternatives the two most significant issues that were raised in scoping. These are the issues of flightseeing related noise impacts to residential areas and flightseeing related noise impacts to other uses of Juneau's recreational areas.

B) Other Alternatives not Considered

- 1) **Maximum Daily Landings.** The DEIS needs to include alternatives that grant permits on a daily basis rather than a seasonal basis. The Forest Service's practice of allowing operators to up their number of flights on Juneau's rare days of sunny weather has contributed to the perception held by many Juneau residents that the flightseeing industry has destroyed all opportunity for finding any peace and quiet outdoors. JGSC requests that the Forest Service develop alternatives that set a maximum number on the landings that can occur on any given day. Such an alternative could set a maximum number of daily landings that is roughly equal to the seasonal daily average of landings, and could also adjust that number downward for local high use days such as weekends and holidays.

- 2) **Inadequate Range of Permit Numbers and Landing Sites.** There is only one alternative, other than the no action alternative, that reduces the number of permitted landings below the level of current use. There are no alternatives, other than the no action alternative, that reduces the number of landing sites.

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Instead we are presented with the prospect that more landings will occur and more sites will be authorized for those landings by four of the alternatives. As reducing permit numbers and controlling flight paths by restricting landing locations are two of the most important tools the Ranger has for addressing noise impacts, not including more options for reducing the numbers of permits and sites undervalues the importance of noise impacts to neighborhoods and recreation areas as a significant issue. As JGSC has repeatedly pointed out in these comments, these issues are not just significant but they are the most significant issues brought forth. This is borne out by the scoping process, the failed mediation process, and the level of controversy in Juneau surrounding the issue of noise related impacts resulting from flightseeing operations. JGSC requests that an alternative that reduces flightseeing landing permit numbers on the Juneau Icefields to a level midway between alternatives B and C be developed and analyzed for public review.

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Section Five: Wildlife

Mountain Goat Guidelines

The first observation we have to make in regards to the DEIS's treatment of TLUMP's Standards and Guidelines regarding Mountain Goats is that the DEIS should include the entire guideline (WILD122 XII) in the Purpose And Need section. This section, TLUMP WILD122 XII, is not long (20 lines), and to only selectively quote from it does not serve the public well. More specific comments are listed below.

- 1) WILD 122 XII A 1, XII A 1 a), and XII A 1 b). These guidelines require the Ranger to locate facilities and concentrations of human activity as far from important habitat (kidding and wintering) as feasible, and establishes as a benchmark, a mile minimum distance. This guideline does make a seasonal exemption. Neither does it make an exemption for areas where the Forest Service makes a claim that goats have become habituated. If it is feasible to maintain the distance year round then the Ranger is required to do so. When it

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is not feasible he is then required to at least restrict landings and facilities within one mile of important kidding habitat for the May 15th to June 15th time span. The DEIS maps make it obvious that this minimum benchmark distance has not and will not be adhered to for most of the identified areas of kidding habitat if operators are granted the permits they have requested under any of the alternatives. It is also obvious from the maps that a large part of the project area is more than a mile in distance from identified kidding habitat. The amount of discretion the Ranger has to violate the guidelines in this regard hinges on the definition of feasible. JGSC believes that as there are large areas of the Icefields that are more than a mile from kidding habitat, it is feasible to restrict landings for most of the kidding habitat if not all of it, on a year round basis.

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- 2) The DEIS does not include the Blackerby Ridge habitat as important kidding habitat. From personal observations of JGSC members, Mountain Goats are present on Blackerby Ridge. Blackerby Ridge also appears to have the required forested areas on its flanks and to have escape terrain within 1300 feet of these areas.

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- 3) The DEIS's conclusion that goat populations are habituated may not be supported by sufficient data. Personal conversations with ADF&G habitat biologists have called into question the sufficiency of the studies carried out by the Ranger District for reaching a conclusion that flightseeing activities are not significantly impacting Mountain Goat populations in the project area. JGSC will await the District's response to the comments it receives from other resource agencies before commenting further on this issue.

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- 4) Mitigation and Monitoring. Monitoring is not mitigation. The DEIS lists monitoring landing activities at sites where the one mile distance is being violated as a measure that mitigates for these violations (DEIS 2-27). JGSC suggests that a more appropriate mitigation measure for all impacts to Mountain Goats under this DEIS, would be to establish a "refuge ridge" between Auke Bay and Sheep Creek where all flightseeing activity (landings and over flights) would be prohibited or discouraged to the

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(cont.)

maximum extent possible for a distance of one mile from the "refuge ridge". This ridge would serve as a control for further studies on the impacts of flightseeing activities on Mountain Goats in the project area.

Section Six: An Alternate Alternative

Throughout the protracted scoping process that has led to the production of the Helicopter Landing Tours on the Juneau Icefield DEIS, CBJ citizens have identified issues and suggested solutions. Many of the suggested solutions have either been ignored or dropped from consideration. JGSC requests that the range of alternatives be increased and that the following measures be incorporated into an alternative.

- 1) JGSC supports alternatives that set a daily maximum on permitted landings with one of them setting a number that is roughly equal to the seasonal daily average. As noted previously, information is lacking in the DEIS on the amount of landings that actually take place on high use days. Information on this and on the percentage of landings that are canceled due to factors beyond the control of the operators would have to be gathered and assessed to determine the likely effects of a daily maximum. Until this information is compiled JGSC can't be more precise in a recommendation of what a maximum daily number for Icefield landings should be.
- 2) JGSC supports an alternative that sets a larger buffer around and over the area's trails. 1500 feet is not sufficient to reduce flightseeing noise impacts to ground based recreationists to a level acceptable to our members.
- 3) JGSC supports the setting aside of a "refuge ridge". This ridge would be located between Auks Bay and Sheep Creek. It would function as a baseline area for Mountain Goat studies and as a quiet zone for hiking.
- 4) JGSC supports an alternative that does not permit landings that are associated with over flights of the Gilkey River.
- 5) JGSC supports an alternative that reduces icefield landings on holidays, reduces landings from 3:30 pm Friday to 8:30 am Monday, and completely prohibits landings on Saturdays. By establishing a daily maximum for

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permitted landings there would already be a mechanism in place for accomplishing this.

- 6) JGSC believes all alternatives should prohibit landings when TLUMP's minimum distance of 1500 ft over Mountain Goat habitat can't be maintained.
- 7) JGSC supports an alternative that incorporates the concept of a noise impact budget for individual neighborhoods and recreation areas. This budget would be based on the cumulative over flights of permitted and non-permitted flightseeing activities carried out by permitted operators. As permits are granted on a one year basis, the level of permits granted for a current year would be based on adherence to the allocated budgets for each area during the previous year. A fee system would be established to fund the required monitoring, and operators would be required to provide all needed flight log information as a condition for receiving permits.
- 8) JGSC supports an alternative that reduces the overall level of flightseeing permits granted. Under the current DEIS only one alternative reduces landings without eliminating them altogether. As stated previously JGSC believes the range of alternatives should include other options for reducing landings.

Summary of Requests

- 1) JGSC requests that a supplemental DEIS be prepared (Section Three, pg. 11)
- 2) JGSC requests that the Forest Service quantify the impacts resulting from non-landing flightseeing activities and other aircraft activity occurring in the project area (Section One, Item 1).
- 3) JGSC requests that the Forest Service provide maps showing the project area's ROS class designations (Section One, Item 2).
- 4) JGSC requests that the Forest Service quantify the number of landings that have occurred during the past season for each permitted landing site and include to the degree possible the number of landings that will occur for each site under the DEIS's alternatives (Section One, Item 3).

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- 5) JGSC requests that the Forest Service quantify the number of landings that have taken place at each permitted site during the high use days for each site (Section One, Item 3).
- 6) JGSC requests that the Forest Service include maps that show the location of enclave sites permitted in the past season and quantify the use they have received (Section One, Item 4).
- 7) JGSC requests that the Forest Service quantify the number of permitted landings that are occurring on high use days for the Icefields as a whole. This data should then be used to predict the high use day levels of activity that will occur under the various alternatives (Section One, Item 5).
- 8) JGSC requests that the Forest Service carry out trailhead surveys that would accurately quantify local use of project area recreational areas (Section One, Item 6).
- 9) JGSC requests that the Forest Service conduct surveys to ascertain how much recreational use has already been displaced due to flightseeing impacts (Section One, Item 6).
- 10) JGSC requests that the Forest Service quantify the use each flight path has received in the past season from permitted operations. This data should then be used to project the use each route is likely to receive under the various alternatives (Section One, Item 7).
- 11) JGSC requests that the Forest Service ascertain the effect flightseeing noise impacts have had on property values (Section One, Item 8).
- 12) JGSC requests that the Forest Service survey owners of non-mechanized outfitter/guide tour operations to ascertain the effects flightseeing noise impacts have had on their businesses and the level of satisfaction experienced by their customers (Section One, Item 8).
- 13) JGSC requests that data on economic benefits resulting from landing flightseeing tours be compiled that uses the actual prices paid by customers as its basis, and that the Forest Service assess how much of that revenue stays in the community (Section One, Item 8).

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- 14) JGSC requests that the Forest Service establish a minimum buffer from trails and popular recreation areas for non-permitted flightseeing activities and when this buffer is entered into that it be considered as a social encounter under TLUMP's ROS class guidelines (Section Two, Item 1).
- 15) JGSC requests that the Forest Service use the trail survey data requested in item 8 of this section to rank Juneau's recreation areas for the purpose of complying with TLUMP's criteria for authorizing outfitter/guide operations (Section Two, Item 2).
- 16) JGSC requests that pursuant to NEPA 1502.14, the Forest Service prepare an alternative that utilizes designated flight paths to minimize flightseeing noise impacts to neighborhoods and highly popular local use recreation areas (Section Four, A, Item 1).
- 17) JGSC requests that the Forest Service develop alternatives that set a maximum number of landings that can occur on any day that is roughly equal to the average daily number of landings permitted (Section Four, B, Item 1).
- 18) JGSC requests that the Forest Service include an alternative that reduces permitted flightseeing numbers midway between alternatives B and C (Section Four, B, Item 2).
- 19) JGSC requests that the Forest Service include an alternative that establishes a refuge ridge for mitigation of flightseeing noise impacts to Mountain Goats (Section Five, Item 4).
- 20) JGSC requests the Forest Service prepare an alternative that incorporates the items listed in Section 6 of these comments.

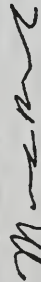
Conclusion

The DEIS does not provide the critical information needed for the decision maker to come to an informed decision. There is no indication that any compilation of this critical information has even been attempted for the decision maker to utilize. The information in the DEIS is not sufficient to assess the DEIS's compliance to TLUMP Standards and Guidelines. What information that is there, indicates widespread non-compliance with REC 122 and WILD 122. NEPA's mandate that cumulative impacts be

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assessed has not been met, in large part due to insufficient data being collected and presented. The requirement for the Ranger to seek balance between the conflicting uses of mechanized and non-mechanized recreation is only minimally reflected in the range of alternatives, with most mitigating measures being far too little. The two most significant issues, those of noise impacts to neighborhoods and noise impacts to local recreational users from the cumulative impacts of all flightseeing, have not been addressed adequately in the DEIS, or been reflected in the range of alternatives. An SDEIS should be prepared, and in the interim, JGSC requests that alternative B be implemented.

On behalf of JGSC



Mark Rorick

Chair, Juneau Group of the Sierra Club
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Exhibit A

Excerpts from the scoping record

- Kathryn Callahan
"The noise during the tourist season is a very big impact on residents that are flown over and by other users of the trails both private and commercial. It seems that the number of tourists has increased to the point that to find a quiet place to be during a nice day in the summer, one must go all the way out the road."
- Ted Mervell
"(and landings) eliminated from all hiking trails and alpine destinations - specifically Spalding Meadows, Blackerby Ridge, Mt. Juneau, and Mt. Roberts."
- Ron Gillette
"Depending on the number of cruise ships, the noise can be incessant and even when the noise dies out the disruption remains. Living or hiking near a flight path has the ambience of Tan Son Nhut in 1969."
- R T Wallen
"I am also concerned about the impact of such a large-scale proposal on the wildlife and character of the backcountry in the areas affected. It seems to me that the brochures attracting visitors up here with a promise of escape from the noise and frenetic activity of life outside Alaska increasingly beg the question of truth in advertising."
- Robert Sauerteig
"As an outdoor enthusiast, I love to spend time hiking and climbing in the mountains around Juneau. Without elaborating too much, let me just say that helicopters flying by me on Mt. Juneau, or Mt. Stroller White, or Bullard Mt. do nothing to help me enjoy the experience. ...I am in favor of forcing the operators to follow specific flight paths."
- Marinke van Gelder
"I also want the permitting process to include designated flight paths as a condition to receiving a permit to land on the icefield." "One of the most negative effects of tourism is the seemingly constant noise from helicopters. This is particularly disturbing when hiking on trails in the Juneau area. I would like to be able to hike on Juneau's trails without a barrage of noise from helicopters. I would like hiking trails to be off-limits to helicopter activity. It is perhaps impossible to eliminate the traffic above the West Glacier trail and the trail to Thunder Mountain, but there are many other trails that do not need to be flown over, such as the Spaulding Trail and meadows, the Herbert Glacier Trail, Sheep Creek Trail, Perseverance Trail, Treadwell Ditch Trail and the lower part of the Dan Moller trail."

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- Mark Schwan and Debbie Ballam "The noise is not a short-term impact when the helicopters are in the air all day long; noise becomes a nearly constant irritant all day for months out of the year. And it is not just near my home; given locations of existing heliports, flight paths, and destinations, helicopters noise is becoming all pervasive in our urban area and immediate backcountry locations." "The increased drone of helicopters on their way to and from ice field destinations is only grating on me more and more. It is to the point that I see this area as another 'paradise lost'."
- Timothy R. June "These noisy flights are a menace to hikers, hunters, visitors, and residents alike." "The continued permitting of commercial helicopter landings essentially commits valuable forest resources exclusively to a small, but wealthy group of patrons while denying solitude and tranquility to the many hikers, fishermen, climbers, and wildlife."
- Eric Holle "While I only occasionally utilize backcountry areas around Juneau, I have found the intrusive nature of Temco's helicopters to be extremely obnoxious, both in residential area in Juneau, and at higher elevations. Indeed, there are many areas where my friends and I cannot ski due to helicopter traffic. I am amazed that Juneau residents tolerate the insult of these helicopters."
- Sylvia and Richard Gard "The mass exploitation of our fragile back country by helicopter companies will greatly disturb our delicate vegetation, animals, birds, and people. The entire Juneau Ice Field should not be ruined for profit. Please limit helicopter landings to the Mendenhall Glacier area. If tourists wish to see the Juneau Ice Field they can see enough of it there."
- Barbara Turley "Allowing commercial helicopter flights into areas along the coast (Berner's Bay, for example) or into the narrow strip of forest and mountains between the ocean and the icefield would significantly detract from the recreational enjoyment of these areas by hikers and boaters. Designate some areas for quiet backcountry recreation and do not allow helicopter landings in these areas. All of the established hiking trails should be protected in this way."
- Susan Nelson "These flights are objectionable because of their adverse effects on mountain goats, bears, residents, and recreationalists."
- Debra Cohely "I have not found a hiking trail on the road system that is helicopter free in the last two summers. I strongly support designated quiet zones especially near hiking trails and cabins."

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- Carol Schirmer "They had to fly from North Douglas over a few people's homes towards the icefield and I guess I was one of the 'lucky' ones. I would leave to get away from the noise and guess what? Salmon Creek Dam trail, East and West Glacier trails, and a few others were no place to hide either. I'm thinking, this summer I'll hop in a kayak and paddle out to Berner's Bay and maybe visit the new forest service cabin out there. Tell me, will I be disappointed, upset, and disgusted? I hope not. I'm really hoping that we will be able to enjoy a pleasurable backcountry existence with as little impact on the surrounding country as possible." "However, I am hoping someone in the Forest Service will create a limited use, limited impact plan that will prevent the Juneau Icefield from turning into a ice follies nightmare for animals and residents."
- Susan Pollard "No area of town is immune, it is particularly bad around the Mendenhall wetlands. I find it unbearable to go out there on a sunny day." "My family, like many around here, uses the Point Bridget area and Berners Bay for the wilderness setting. It is not appropriate to have helicopter ruining the few relatively quiet areas around here."
- Peggy Wilcox "As a Juneau resident and avid hiker I already find it nearly impossible to enjoy the road accessible trails and backcountry around Juneau without encountering what I consider excessive and intrusive helicopter traffic. I understand the being in a helicopter is fun, unfortunately it is only fun to the people IN THE HELICOPTER - all other recreationists have their outdoor experience diminished by the oppressive presence of the helicopters."
- Joyce Levine "At the present time, I feel that the number of helicopters that are allowed to land on the Juneau Icefield needs to be kept to the area where they land on the ice and not spread further into areas such as Berners Bay or other areas on the Icefield where cross-country skiers and climbers enjoy the quiet." "As there are flight paths set up for airplanes and floatplanes, I would like to see flight plans set up for the helicopters so that it will minimize impacts to residents, and those that use the Forest for recreational purposes. It is important that the flight patterns be kept the same by the helicopters. It is also important that the helicopters, in order to receive a permit, be required to maintain an altitude of approximately one mile when traveling over the Tongass. As the wildlife is one of the main reasons visitors come to Alaska, it is important that a mile altitude buffer be kept so that the population of mountain goats as the area are not disturbed by the helicopters. In areas of populations of mountain goats helicopters should not be allowed since it is very important that we protect their habitat. For example, in the Chugach, helicopters are denied to areas where there are 15 or more goats. Another example is that boats are not permitted in close proximity to where sealions are calving."

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- Andrew M. Kelter
"These crafts are large consumers of fuel and they are very noisy. Their use should be very carefully thought out. I am particularly concerned with effects on wildlife and wilderness values." "I would like to see some areas off limits to helicopter, in respect of wilderness experiences."
- Steve Wright
"I believe there is already an excessive number of helicopter landings permitted under the 1995 EIS and that this number should be reduced because of significant adverse noise impacts to wildlife, non-motorized recreational users, and local area residential neighborhoods. Of particular concern is the lack of quiet backcountry recreation because of the ever present noise of helicopters during the tour season May through September."
- Julia Halderson
"Hiking enjoyment on many of Juneau's finest trails is currently diminished because of the constant drone of air traffic. More air traffic noise in these areas can only further diminish the outdoor recreation experience."
- Chas Dense
"Quiet is a right. Or it should be, anyway. Juneau has a world class trail system that offers a variety of hiking opportunities. Most hikers highly value the rejuvenating quality of the natural outdoor environment. A hike in the woods, along the beach, or even a trek on a glacier provides an opportunity to 'get away from it all'." "The distraction caused by helicopters ruins the contemplative state for a much longer period of time than the passing noise." "No longer do Juneau's trails provide the quiet and lack of disturbance they did just a few short years ago. Something has gone terribly wrong and a significant part of it has to do with the dramatic increase and dispersion of helicopter tours. Helicopter noise is a perfect example of the part of civilization hikers take to the mountains to 'get away from it all'. In this vast area around Juneau, I believe the general public has a right to have reasonable opportunities to find dependable peace and quiet and listen to the untrammelled sounds of nature; without disruption by helicopters." "Concentrate routes and sites. The best way to manage the annoying effects of helicopters is to concentrate their use, not to disperse them all over kingdom come. The disturbing affects to hikers from helicopters can extend for several miles, depending on topography such as in a valley. The maps of proposed routes and sites criss-cross the entire Juneau trail and ridge hiking system, not to mention nearly the entire Juneau ice field. This means the important public value of dependable quiet is being sacrificed for a few people in an already profitable and successful industry."
- Brian Reilly
"...as you near your destination, (a summit, a lake, a glacier) the presence of the helicopters becomes more apparent and more oppressive. I spent several days at the Eagle Glacier

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- cabin last June and felt like I was on display. There were more helicopters that mosquitoes." "So, I urge you to focus on the potential impact of the expansion of the helicopter tour industry on all those who seek to experience a 'natural' nature."
- Kate Palmer
"I continue to be opposed to helicopter landings on the Juneau Icefield and vicinity for the following reasons: 1. This use infringes on the rights of other users of USFS land to enjoy NATURAL QUIET. It diminishes the quality of other users' experiences."
- Nancy Berland
"I and other recreational users are greatly disturbed by helicopter overflights. The more choppers that fly overhead and the lower the elevation, the greater the annoyance."
- A.A. Degen and Sandra June-Degen
"Helicoptering is the bane of the Alaskan wilderness experience - for both the wildlife and the people of the state who, like us, regard the undisturbed quiet and integrity of the environment as our greatest treasure. In evaluation how many additional tours to allow on the Juneau icefields, we urge you not to permit on the basis of narrowly focused tourist and commercial interests." "At a minimum, the restrictions enjoined in the 1998 Chugach National Forest decision mandating designated quiet backcountry recreational areas and designated flight paths as a pre-condition of permitting, must be duplicated."
- Tim McDonough and Ann Myren
"We would like to see permitted landings excluded from well established hiking trail areas. Folks that take the time and energy to walk up mountains should not be subject to noisy helicopter landings ruining the peace and quiet they have worked hard to experience."
- Anne Fuller
"It is important that you protect quiet and undisturbed areas of the Forest." "The ridges accessible for hiking should be free of helicopter landings and close flights. Quiet backcountry recreation areas should be maintained close to town..."
- Dr. Alan McPherson
"The helicopter traffic has ruined my enjoyment of many of the trails in the Juneau area already. I moved here to because of the wildness of the area around Juneau, and now am forced to travel away if I want a peaceful walk in the backcountry. It is impossible to have a quiet hike up Blackberry Ridge with at least ten Helicopters an hour buzzing over. The pilots in no way keep above the current height restrictions, I have witnessed many flying just above tree level and on a number of occasions I have seen them hover for a closer look at the wildlife on the high ridges. The Helicopter traffic is too much as it is. Its affect on the local people and the wilderness is too great as it is. The tourists who pass through Juneau just want a quick comfortable Alaskan wilderness experience, and if left unregulated will destroy this Alaskan wilderness. There are greedy people in

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SE who will, for money, provide the means for the tourists with a passing superficial interest in seeing the Icefield to degrade the wilderness. In fact the tourist companies are ever searching for new ways of attracting the disinterested rich to their Icefields wilderness Helicopter experience. It is just for money, only money, all the other motivations voiced such as heightening the environmental awareness of the tourists are but a sham, it is just for money. These companies will ruin the wilderness for the local people then try to dismiss our deep felt loss as environmental whining. The wilderness is not solely the property of these few but influential companies, who see profit as the prime goal."

• Lori Teel

"WHOP WHOP WHOP WHOP!!!!!! The loud, intrusive, repetitive pounding echoes not only above but also all around where we stand." "Helicopters make enormous impacts. They are incredibly loud and intrusive, and can be both heard and felt from miles away. They destroy peace and quiet, conflicting terribly with any type of serene, backcountry recreation, such as hiking, backpacking, canoeing, kayaking, and skiing."

• Rob Goldberg

"My objections to helicopters on public lands are twofold: they cause major harm to mountain goats, and they ruin the experience of people like myself who enjoy the quiet of the backcountry." "For more than 20 years I have made my living painting scenes of wild places in Alaska. The huge increase in helicopter tourism has been very disturbing to me and my friends as we seek the quiet beauty of the wilds under our own power. Public lands should be managed for everyone, not just a few insatiable helicopter companies."

• Kristin Hathorn and Mark Battalio

"As backcountry recreationalists, the quietude and the relative lack of commercial development is what first lured us to the upper Lynn Canal." "Landings where conflict with recreationalists and wildlife is likely, must be denied. If not, the upper Lynn Canal will become just another obnoxious tourist attraction, devoid of the natural beauty and peacefulness that attracts people to the area in the first place."

• Bob Armstrong

"While I feel the most urgent need is to direct the noise of helicopters away from human residences, there are some problems with noise in special recreation areas. The most obvious has been the Thunder Mountain/West Glacier Trail areas. These are two of the finest hiking areas within the Juneau road system. I no longer frequent them because of the helicopter noise. I would recommend - a bare minimum - that flightseeing overflights of recreational cabins be disallowed. These are very special places that Juneau residents and tourists enjoy. The noise level on some days has become very annoying. I remember sitting at the picnic table

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outside the Eagle Glacier cabin and not being able to converse with others because of the noise from flightseeing helicopters."

• Brian Flory

"Helicopters are by their very nature severely intrusive to hikers, campers, and other users of USFS managed lands. The noise from helicopters can simply ruin anyone's quest for solitude or freedom to enjoy nature away from the noise of man."

• Cindy Buxton

"We no longer can enjoy the trails in our neighborhood due to the sheer volumes of flightseeing flights over the trails (the trail to Dupont and the Sheep Creek trail). Furthermore, there are no trails within 20 miles of my house that we can use and not be disturbed by flightseeing noise. As a result we do not hike in the Juneau Borough anymore during the cruise ship season. We do almost all of our hiking in April and early May before the flightseeing flights begin in numbers. My idea of a wilderness experience on a trail does not include being buzzed by low flying planes and helicopters every few minutes."

• Janine Reep

"I would like to submit comments regarding the issue of helicopter landings on the Juneau Icefield. I believe there are already too many helicopter flights to the Icefield as they have adversely impacted outdoor recreational activities in Juneau. I, and many other residents of Juneau find the frequent tourist helicopter flights a nuisance and disturbing. It is bad enough to have them constantly travelling over parts of Juneau and Douglas all summer. But, it is also becoming impossible to get away from them in wilderness areas. In an effort to get away from the noise and congestion in Juneau my family and I have traveled out the road and hiked trails such as the Herbert Glacier Trail only to find helicopters flying over and landing near our destination. After driving out the road 20 miles or so and hiking over four miles with our young children we find ourselves rewarded with the feeling of being in a war zone with constant helicopter flights overhead. This is totally unacceptable."

• Sandy Warner

"Routes should avoid conflict areas, such as where trails end at the glaciers, popular ridge hiking areas, and wildlife areas..."

• DeeAnn and Michael Grummett

"The constant noise and presence of the helicopters flying over trails such as the John Muir Trail, Granite Creek and Sheep Creek trails detract from our ability to have a satisfactory wilderness experience when hiking on these and other Juneau trails."

• Margot Knuth

"It was frustrating and unpleasant to be up on the ridge, cavorting with the marmots, only to have a battery of four choppers come buzzing over the mountain every 20 minutes. What used to be

a wilderness experience, gained by hiking for a solid two hours, was turned into a noisy at-one-with-the-helicopters experience."

- Jeff and Susan Sloss "It is imperative to contain the helicopter flights and landings to those areas currently used and not allow the spread of such noisy activities into adjacent sensitive coastal areas such as Berners Bay, the Mansfield Peninsula and any popular trail and ridges on the Juneau road system."

- Jim Rehfeldt "Helicopters are extremely noisy and intrusive and any plan must limit where they are allowed to operate. They seriously impact my enjoyment of the backcountry. Their ability to fly and land anywhere makes it imperative that the Forest Service protect the quiet beauty and wildlife of the Tongass." "You should contain their operations and flight paths so they do not impact the wildlife along the coast or recreation areas..." "I specifically would like landings and flight paths to be denied that would impact existing and historic hiking trails along the Juneau Road System. As tourism pushes local hikers further from town and onto lesser used trails, it is important that these trails not be impacted by helicopter noise." "I am concerned about noise impacts and would like to see the helicopter restricted to current flight paths over urban areas so that the backcountry and wilderness areas are quiet for those that seek such places. It is extremely important to me that these noisy machines be controlled so they do not destroy the value of the backcountry."

- Elisabeth Babich "My family and I love to hike in the wilderness around Juneau, in the last few years though, it has gotten very noisy. We stopped going up Thunder Mtn. And Mount McGuiness because the constant helicopter noise really bothered us. Then one day, I had visitors from Europe and we hiked to the Herbert Glacier. I couldn't believe it when I noticed several helicopter flying up the glacier. Please stop this! A helicopter holds FEW people and the noise impacts A LOT of people! It is not fair and it is a nuisance! Please protect the back country from all this noise! Keep the helicopters out of places like Berners Bay."

- James Alborough "Please make every effort to limit the number of helicopter landings in wilderness locations of Southeast Alaska... I have personally witnessed the disturbing impact of helicopter noise on back-country recreationalists and the general citizenry in the Juneau area."

- Peter and Linda Enticknap "One of the main reasons we live here year round, work here and have raised a family in Haines is to be able to enjoy the peace and quiet of the back country. It is becoming increasingly difficult to find any areas now that are not being seriously impacted by industrial strength mass tourism."

- Thomas Ely "It is extremely important to set aside areas that are off limits to any commercial helicopter activity so that backcountry users can recreate in peace through the next millennium. The demand by the public for this will increase ten fold in the future. Now is the time to identify these places and set them aside. These areas are identified by users, accessible by trails, roads, glaciers, and have received historical use."
- Rory Darling and Jan Moyer "We feel that there is value to wild places, and wild means quiet. Helicopters have no place in the backcountry of the Tongass."
- Louise Champagne "In addition to impacting my residence, helicopter traffic impacts the quality of my recreational experience in the Tongass. The absence of industrial noise is one of the greatest beauties of the Tongass wilderness experience."

REC'D SEP 25 2001

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COMMENT FORM

Helicopter Landing Tours on the Juneau Icefield 2002-2006

Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name JOE HEGSETH
 Address 919 KORNIA CT
 City, State, Zip CA 95633
 e-mail address _____

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
 The Alternatives ☐
 Alternative A ☐
 Alternative B ☐
 Alternative C ☐
 Alternative D ☐
 Alternative E ☒
 Alternative F ☐
 Alternative G ☐
 Significant Issues ☐
 Noise Impacts to Residents ☐
 Noise Impacts to Recreationists ☐
 Impacts to Wildlife ☐
 Impacts in New Areas ☐
 Economic Uses ☐

My Comments

I WOULD LIKE FOR ALL OF OUR KIDS TO BE ABLE TO SEE OUR LANDS WITH NO RESTRICTIONS. THE HELICOPTER TOURS GIVE PEOPLE WITH NO OTHER MEANS A WAY TO GET OUT THERE TO SEE AND TOUCH THE GLACIERS, AS WELL AS GIVING THEM A NEW PERSPECTIVE ON THE SURROUNDING LANDS.

Over.....

JHu

REC'D SEP 25 2001

Peter Griffin, District Ranger
 Juneau Ranger District
 Tongass National Forest
 8465 Old Dairy Road
 Juneau, AK 99801-8041

Dear Pete,

Thank you for the opportunity to comment on Helicopter Landing Tours on the Juneau Icefield 2002 - 2006, Draft Environmental Impact Statement. I am a frequent user of the abundant trails Juneau has to offer. My job also requires that I spend a lot of time out-of-doors. Helicopter flightseeing noise has an extreme negative impact on the quality of my outdoor experiences. Most recently I have endured seemingly endless (every 15 minutes or less) helicopter flightseeing noise during trips to the Spaulding meadows area with my visiting parents in early September of this year, and during a hike to the top of Mt. McGinnis in August. All summer long I was subjected to helicopter flightseeing noise while working at the mouth of Sheep Creek at Thane Road. Even in my office on Sherwood Lane, flightseeing helicopters pass overhead 10 times or more each day interfering with my concentration.

In short, there are too many helicopter landings on the Juneau ice field now. If I could wave a magic wand, I would reduce the number of landings to zero tomorrow. I however realize helicopters are one of many ways to enjoy our unique scenery. It's unfortunate that helicopters noise detracts from most other means of enjoying our wonderful outdoor setting in Juneau. I strongly urge the Forest Service to reduce helicopter landings on the icefield and Mendenhall Glacier; I support Alternative B in the Draft EIS and I support denying helicopter tours or landings in the vicinity of Antler Lake. There should be a few places that folks can escape to for some peace and solitude. Berners Bay is one of those places.

Thanks

John Hudson
 16445 Point Lena Loop Road
 Juneau, AK 99801

JHu 1

JHu 2

JHu 3

JHu 4

JHu 5

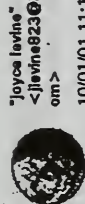
JKen123456@aol.com
08/27/01 10:49 PM
EDT

To: ehall@jwnc.com
cc:
Subject: Draft Environmental Impact Statement

JKGK
RECEIVED
JUN 27 2001

Sirs: I plead with anyone who will listen. Please do not stop the helicopters from landing on the Juneau Icefields. It is an experience everyone should have. It was thrilling and we gained much information on what a glacier really is. I am 55 years old and have traveled to many places, but the ice fields were the most different experience we have had to date. To my surprise I was amazed of the texture of the ice, the water run off (color), and the depth of the crevasses. It is something one has to experience first hand - and the helicopter landing on the glacier showed me something new and very different. People should be allowed to continue first hand the experience of the helicopter rides and landing on the glaciers. It was a awesome feeling to think the ice is thousands of years older than I. Please never discontinue the use of helicopters. Everyone has a right to learn about this part of the world and the best way is to be there and experience it. Janet Kennedy & Garry Ketts

JKGK
1



"joyce lewis"
<jlewis923@hotmail.com>
10/01/01 11:11 PM

To: ehall@jwnc.com
cc:
Subject: Helicopter Landings on the Juneau Icefield

JL
RECEIVED
JUN 27 2001

Dear Ellen:

I attended the meeting which you chaired for the comments on the proposed increased landings of helicopters on the Mendenhall glacier here in Juneau, Alaska. It is very frustrating for me to think that there is thought to increase the helicopter traffic as presently, I think there is too much and that the amount of landings needs to be decreased as well as giving Juneau at least two complete days off from tour-guided helicopters on the glaciers.

The noise from these helicopters has become a nuisance in recent years as the number of helicopter landings have increased. I think it has become so much of a nuisance that we need to rethink what we have gotten ourselves into, and lower the allowable amount of helicopter landings on the Mendenhall Glacier back to the numbers which were allowable in 1994.

It is virtually impossible any more to take a quiet hike out at the glacier because of the constant sound of the helicopters during the summer days. I would like to see a more extensive wildlife study done. A study as to the amount of birds, including eagles, in the area, and what their numbers have been. The deer or bear populations in the area also. I am curious how upon the animals, the level of stress is measured. I would like to see a full wildlife study completed.

I think the time has come to consider Tourism as any other resource and in doing so, like all our other resources, it needs to be regulated. Presently there is consideration being given to limiting the number of cruise ships into Juneau as the effects of tourism are starting to wear on many of our residents. I am a tourist when I go traveling, but I do not go with thousands of other people at the same time. I try to have the least amount of impact when I do travel, but such is not the case of the cruise lines. There have been reports of waste being poured into our oceans, the air is being polluted by their smoke stacks, and our landfill is taking on their garbage when they come into our port. Add the fact that helicopters are constantly flying from the heliports to the Mendenhall Glacier, and the impacts of Tourism are out of hand.

There needs to be controls put on Tourism as it is out of control. Please do not allow any further landings of helicopters on the Mendenhall Glacier or any other glaciers in the area. Juneau is impacted enough by all the noise from the helicopters. It is time to say no. Please go back to the allowable helicopters on the glacier to what it was in 1994. The Tongass National Forest is for a variety of users, not just helicopters. It is important that we all have the peace and quiet that we love about the forest. Hunters and many recreationalists use the area also. Everyone deserves some peace and quiet. Allowing landings on other glaciers is not the answer either. By doing so, no one will be able to keep track of their mishaps like a couple of years ago when 3 helicopters crashed in the same spot one right after the other. I am curious if their waste(including fuel) was ever cleaned up from those accidents?

JL
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JL
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JL
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JL
4

5/5 Please do not allow any further helicopter landings on the glaciers in the Juneau area and go back to the landings allowable in 1994. Thank you.

Sincerely yours,

Joyce Levine
P.O. Box 21705
Juneau, AK 99802
907-463-3829
jlevine023@hotmail.com

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

REC'D SEP 25 2001 JLR

Jen Jaros
<jlaros@yahoo.com>
09/24/01 07:21 PM

To: ehall@twenc.com

cc:

Subject: Comments on DEIS on Helicopter landing tours on Juneau Icefield



Dear Ellen Hall,

I would like to extend a brief account of my concerns after spending some time looking over the DEIS on Helicopter Landing Tours in Juneau. I only wish I had more time to devote to this topic that directly affects my home, community and life in a negative way. I believe that many 12-month residents of Juneau have lots to say on the topic of tourism's effects on quality of life here, but most people have full and rich lives that demand most of their time. Attending meetings, reading through the DEIS, and making an effort to comment on the issue takes valuable time. Please keep this in mind as decisions are being made.

I find it most important to first point out that there are a vast number of residents in Juneau that are opposed to the direction that tourism in general in our home has taken. Frankly, the welfare of tourism businesses and actual tourists have taken precedence over the welfare of folks who have been proud to make Juneau their home 12 months of the year. I find it discouraging that the DEIS seems to hold the economic gain tourism allegedly brings to Juneau more important than the quality of life of those who actually live here. No one seems to see the obvious leak in the Juneau tourist economy. I refer to the fact that the majority of those people employed by or who own the tourist outfits live elsewhere eight months of the year and therefore spend those tourist dollars outside the Juneau economy. So the sacrifices for the almighty dollar are not that beneficial.

I found the portions of the DEIS that address the effects on the residents of Juneau to be inadequate. The section in chapter four on environmental consequences for residents relied on data gathered in Minnesota involving DBA levels. The main reason people live here in Juneau is to get away from the noise and congestion of the lower 48. So the DBA levels don't matter to us here. We don't want to live in a place that even has to measure such things. If we can hear six to eight helicopters every ten minutes for a duration of fifteen minutes, the DBA's are irrelevant! I also find the term "annoyance" used to describe the emotional and mental impact on residents to have derogatory implications. It is not a mere annoyance, but a downright disturbance of my life, a disruption, an invasion, an inconsiderate rudeness that I don't appreciate. I live here and I don't get to get up on the ice field unless I shell out major money I don't have or I hike my own self up there! No one has the right to go there just because they have the money.

I don't have the time to continue assessing the inadequacies of the DEIS. I am in favor of limiting the landings allowed each season. Alternative B sounds

most reasonable, however, I am in favor of less than 95 landings per day, less than 7 per hour. The hours of operation should be 9am to 6pm, 7 hours a day. I agree with the days of the week allowance in alternative B, but would allow Saturdays also with lower numbers of hours of operation and numbers of flights for the day. Perhaps a week day could be designated as no fly day to make up for the Saturday allowance of flights. No new landing areas please. I am also in favor of the helicopters having to fly over 1,500 feet above populated areas, and wildlife habitat which includes the ridges and mountain tops the helicopters fly over. I have been intimidated and frightened by the proximity helicopters have flown to me as I hike in those zones of mountain tops and ridges. I would like there to be regulation concerning this as well.

I am desperate to maintain the way of life for which I chose Juneau as my home. Please consider the people above all else, especially money.

Thank You.

Sincerely,
Jennifer LaRoe
5140 Glacier Highway
Lemon Creek
Juneau, AK
99801

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<http://im.yahoo.com>



Jan Moyer and Rory
Darling
<rayker@afaska.net>

To: ehel@lwno.com
cc:
Subject: helicopter landing comments

09/30/01 11:34 PM

JM
RECEIVED
10-1-01

JM 1
I strongly support Alternative B for the Helicopter Landing Tours on the Juneau Ice field 2002-2006 or some method of reducing the obnoxious noise the citizens of Juneau are subjected to constantly throughout the summer.

JM 2
I moved to North Douglas over 10 years ago. Back then the amount of helicopter traffic was tolerable so working in my yard was pleasant. With the growth in the number of helicopter trips over the past 6-8 years, it is not pleasant anymore. It is impossible to talk when the "herd of copters" is flying overhead. It is ridiculous to have to put up with this noise for non-necessary transportation.

I believe there should be:

- JM 3
- 1) fewer flights allowed every day
 - 2) at least one weekend day of no-flying a week and preferably two
 - 3) limited flying hours that are adhered to
 - 4) removal of flight seeing operations from residential neighborhoods

Increasing the number of landings is totally unacceptable. I hope you will listen to the citizens of Juneau that are suffering from this noise pollution and give us some relief. A little peace and quiet would sure go a long way.

Sincerely,

Jan Moyer
6732 Gray St
Juneau, AK 99801-9432
(907) 463-4861

"Jim Rehfeldt"
<rehfeldt@alaska.com>



09/30/01 11:44 PM

To: <ehall@twenc.com>
cc:
Subject: Helicopter Landing Tours on the Juneau Icefield DEIS

JReh

RECEIVED
RETENTION

JReh 1
I am writing to comment on the DEIS for helicopter landings on the Juneau Icefield. Like most Juneau residents, I have been continually impacted by flight noise in our city. I feel that the impacts are much more significant than the DEIS portrays. We have reached critical mass.

JReh 2
For this reason, I am strongly against any landings on the Juneau Icefield. We must reduce the noise in our community, and while the DEIS does not predict the drop in flight tours if landings are eliminated, I feel the result will be less flights.

JReh 3
In addition, I am against creation of any new landing areas. Spreading the noise does not reduce it. The more places where landings are allowed, the greater the impact on wildlife, recreationalists, and residents.

JReh 4
The Forest service has a responsibility to protect the common good. Allowing helicopter landings on the Juneau Icefield is not in the interest of the common good.

Jim Rehfeldt
Juneau, Alaska



Jerry Reinwand
<reinwand@ptialaska.net>

To: ehall@twenc.com
cc:

Subject: Question regarding EIS Information

07/26/01 11:23 AM
Please respond to
reinwand

JReh 1
In reviewing the information contained in the EIS on fixed wing aircraft flights, I found data which seems to be inconsistent. In Chapter 3, page 8, under the subheading "Taku Lodge-Wings of Alaska" I found the following statement: "Annually, approximately 25,000 people participate in fixed-wing flightseeing tours with Wings of Alaska in the Taku Inlet area. Approximately 50 percent of these individuals elect the tour that includes a visit to the Taku Lodge and use of its amenities."

In Chapter 4, page 24, I found the following statement under the subheading "Wings of Alaska, Inc.:" "On a typical day during the summer season, Wings of Alaska, Inc., average 45 to 50 takeoffs per day (most destined for Taku Lodge), with 70 to 75 on the busiest days, from the downtown waterfront."

If the Chapter 4 statement is correct, and if you assume that an average flight will accommodate 4 passengers, the 25,000 passenger number mentioned in Chapter 3 is undoubtedly very low.

Could you e-mail which chapter in the EIS regarding Wings of Alaska is accurate?

My e-mail address is: Reinwand51@aol.com.

Thank you.

Jerry Reinwand
707-561-8466

Joe Sonnenman
<senator@gcl.net>

To: pgriffin@is.fed.us, ehall@fwenc.com
cc:
Subject: Juneau Helicopter Landings, COMMENT

09/19/01 02:40 AM

324 Willoughby
Juneau, AK 99801
(907) 463-2624

September 18, 2001

To Forest Service
District Ranger Pete Griffin
& Ellen Hall

Re: Juneau Helicopter Landings, DEIS, Permitting, etc.

First, I congratulate Karla Hart on her extensive and intensive review of the DEIS and align myself generally with her comments, though with some exceptions or minor variations, which I list below.

Second, I also congratulate the operators of flightseeing aircraft and of cruise ships, for moderating, in part, the negative effects or impacts of their activities in 2001, as compared to year 2000 and before. Noise from aircraft--both fixed wing and helicopter--is somewhat less now than before, whether because of changed flight patterns (as in some helicopters now taking off low over water and not climbing until at the center of the Gastineau Channel, or flying at higher altitudes) or because of changed equipment I do not know. Air pollution from cruise ships at rest is also somewhat less this year than last, though air pollution still occurs--as does noise. Newspapers reported several 2001 water pollution events early in the season, but the cruise operators know all eyes are on them now and perhaps are improving. But the operators and cruise lines have only moderated (not 'solved') some PARTS of the problem.

BASIC PROBLEM However, the basic problem is caused by too many tourists, too much flightseeing, and uncontrolled growth in ship size and frequency and season duration.

NUMBERS The numbers are fairly well known and come from the Juneau Economic Development Committee: in 1990 Juneau had about 230,000 cruise ship tourists; in 2000, about 680,000 (nearly triple). [Note: the year 2000 number was based on capacity of ships, not actual passengers]; year 2001 was projected at a capacity over 700,000, I think, but I suspect that the actual number will turn out to be rather less.

EXPERIENCE I was myself in the land tour business in 1995 (one mini-van) and drove taxicab and tour bus about 1980, so I have some little first hand experience in this industry. Very little, really, but some experience all the same.

DAYS PER WEEK: This is probably the most important element, because one of the simplest, yet with a great effect. In 1995 and before, the cruise industry operated into Juneau only 6 days a week, taking Saturdays off. In fact, in that year cruise ship representatives

claimed this was intentional, to give each community in Southeast Alaska a day off.

Typically, tours then were 6 day tours, operated for the most part out of Vancouver (to abide by the letter but not the intent of the U.S. "Jones Act", which requires cabotage (coastwise traffic) to be carried on only in U.S.-built ships manned with U.S. crews. The intent of the Jones Act was to support U.S. shipbuilding industries and U.S. seafarers. The cruise ships obeyed the Jones Act by NOT sailing from Seattle to Alaska in foreign "bottoms" with foreign crews (often crews segregated by occupation, race and nationality). The cruise lines did NOT support U.S. ship building and U.S. seafarer unions, however, because instead they sailed from Vancouver Canada with foreign flag ships and foreign crews.)

So, 6 days tours, out of Vancouver, B.C., using the 7th day to re-supply and re-fit the ship for its next cruise. So it was kind of a natural for there to be a day when the ship would NOT be in an Alaskan port.

But some time around 1997, this changed--and there was NO environmental impact study done on the effect of the change from 6 days a week to 7. [Does this mean the present 7 day a week sailings are NOT in accord with NEPA???]

In fact, a cruise ship representative then even denied what the industry had claimed just two years before--that the day off was intentional, by design, to give communities some time off. In 1997, he said that it was always just about ships, berths, and availability. If the latter story is true, the cruise lines were always only in it for the money; if the former story is true, then they used to care about the communities ... but care no longer??

THE POINT: TAKE SATURDAYS OFF.: The point is that Saturdays off is something the cruise ship industry until very recently (1997) did on its own. This is a system the industry knew how to do and both the industry and its on-shore partners can make plenty of money operating 6 days a week. Six days a week gives Juneauites a break from the noise. Six days a week reduces total noise, total pollution, and total congestion by about 15% at one stroke. Six days a week reduces the level of complaints, because, having one day a week of quiet, Juneauites can the more readily accept the six days of business activity. Historically, the industry chose to have Saturday be the day off in Juneau, but Sunday would probably work as well, as far as Juneau is concerned. The day off should be a weekend, though, so that the majority of people can have the quiet time to enjoy themselves.

SHIP SIZE: 1997 also marked the arrival in Juneau of the Sun Princess, the first cruise sailing to SE Alaska over 2000 passenger capacity. Now, of course, that mark seems like ancient history, as ships arrive here up to at least 2800 passenger capacity. [Uncertain memory says that the older generation ships of 1980 held about 750 passengers]. There has been a radical increase in ship size.

I own one (1) share each of Royal Caribbean and of Carnival Cruise Lines, just to get their annual reports. Wall Street analysts

repeatedly comment that it seems as if the cruise industry should be making a lot of money, but the industry is plagued by competitiveness and overcapacity (i.e., too many ships). These two factors complement one another in a negative way. Because each cruise ship line is competing with other lines, each tries to build more ships and so take business away from its rivals. But because ALL lines are building more ships, there is overcapacity in the industry--an overcapacity which seems to be worsening because plans for many new and bigger ships are already under way, the new ships are even now being built.

In addition, the newer ships are getting bigger and bigger. This too is being driven by economic factors, as one needs only one captain per ship, whatever its size. There are some economies of scale, in other words.

Ship size had for a time been limited by the maximum size that would go through the Panama Canal; whose water locks are a fixed length and fixed width. Ships built to these limits were known as "Panamax" ships. Limited in length and width, ships built recently were built with higher and higher superstructures, more and more floors/levels/stories. This might make them more risky in rough waters, but SE Alaska waters are for the most part sheltered.

But now ships are being built and sailed in Alaskan waters which are beyond Panamax size [the 2800-passenger vessels are usually over that length].

SEASON LENGTH: I don't have a historical record before me, but do believe that the season now is longer than it was, say, in 1980. In other words, ships start arriving in Juneau earlier in Spring--and continue arriving later in Fall--than they used to do twenty years ago. You can check the record yourself, as I can only say what I remember and memory is uncertain, but I am reasonably sure you will find this to be true..

GENERAL EFFECT: Of course, more ships, and bigger ships, sailing more days per week, over a longer season, really adds up. These are the ways in which cruise ship passengers increased from 230,000 in 1990 to 680,000 or so in 2000. But there has also been a shift in the type of visitor arriving in Alaska by cruise ship. Where once cruises were reserved for the wealthy, now cruises have been offered for much lower rates, because those excess-capacity ships still have to cover costs, if not be filled to capacity each time out. In 2001, I have heard second-hand stories of rates as low as \$600 ... or, once, \$276 ... for a week's cruise in Alaska. So this overcapacity troubling to cruise ship companies' bottom lines has a much happier effect for the democratic masses ... but also a much bigger impact on residents in SE Alaska communities. The complaint of more customers, but smaller profits, has been heard from some local merchants targeting the cruise ship passengers, so there may be some point at which fewer flightseeing permits or helicopter glacier landing permits will even be needed.

LIMITS NEEDED: Limits are needed on this huge impact. The Juneau World Affairs Council [I am a member and 3-times past president, but am writing personally and not representing any groups whatsoever] heard from speakers from the Galapagos; there, Ecuador limits ship size to 90

passengers; in some areas, only 6 passengers; and to some areas, they allow NO passengers. Juneau can absorb more than can the more fragile Galapagos, but even Juneau has its limits, its "carrying capacity." I estimate that capacity at 500,000 cruise ship passengers annually, so we are already over the limit. As luck would have it, going back to six days a week would come close to dropping the numbers back towards that livable, sustainable number, though if the industry keeps growing, we may have to cut back to 5 days a week to reach that 500,000 annual level.. Juneau's Assembly I think sponsored or accepted the idea of 'sustainability.' This means, not doing so much that you injure the resource for following years; limiting the economic activity so that you can keep on doing it. 500,000 passengers per year is a sustainable level for Juneau's people and resources ... if not for all merchants or tour operators.

So I suggest the following limits:

Days per week: 6
Cruise ships size: 1,000 passenger maximum [to ensure competitiveness--up to 5 ships daily]
Maximum number of passengers per day: 5,000 [Juneau now has some days at or over 10,000]
Maximum number of passengers per year: 500,000
Maximum length of season: 100 landing days @ 6/week - about 17 weeks.

IF these limits were in place, there would not be much need to regulate or limit the number of glacier landings, because (a) few operators would run flightseeing tours on Saturdays if no big ships landed here then, and because (b) fewer landings might occur with 500,000 passengers annually than with 680,000 or more per year. [I do not agree with Karla as to necessary results, though, because for example the cruise ship lines might respond to lowered gross number with INCREASES--even substantial increases--in promotion/advertising/marketing of lucrative flightseeing, in order to maintain or even increase the number of glacier landings despite a reduction in gross numbers; there are too many variables to make coherent predictions].

However, these limits on SHIPS are NOT yet in place. Indeed, it almost seems as if the whole practice of the industry in moving towards partial solutions of particular problems [noise, air pollution, water pollution, bus routes, etc.] is to AVOID overall limits such as I suggest two paragraphs above.

Still, YOU ARE regulating the number of glacier landings, almost in lieu of the ship-based limits I suggest. There are at least two ways for you to do this.

(1) Consider the number of landings you allowed in a year with, say, 632,000 cruise passengers (year 1999?); then REDUCE the number of landings by the same percentage it would take to reduce the actual number of cruise ship passengers to 500,000 [my estimated 'carrying capacity' number]; OR

(2) given that 1997 seems to have been the watershed year--when days per week went from 6 to 7 and when ship size first broke the 2,000

passenger level--to go back to the 1996 level of glacier landings.

ECONOMIC INCENTIVES: From the firm conducting Juneau's 2001 tourism study, I learned that Juneau Ice Cap flights are among the top 10 sights, world wide, for cruise ship passengers, and that the cruise ship lines make so much money from these flights, that that money is the reason the cruise lines are so reluctant to live with ANY limits. From a former air tour operator I've learned that cruise ships used to demand (and get) a 35% commission (or kickback) from the air tour operators. I have no direct knowledge of what percentage they get now. [He said he just increased his prices by enough to make his same profit margins].

But the problem of overcapacity and rumors of low-priced cruise ship tickets makes it seem as if the ships are essentially covering their costs with the ticket prices, and making their profits on the probable air tour commissions.

I have seen a tendency since 1995 for land and air tours to be pre-sold, on board the ships or even when buying the tickets initially, rather than to be purchased in Juneau by arriving cruise ship passengers. I agree with Karla Hart that this practice seems to lead to passengers taking flights on days which appear to me to be marginal, weather-wise, but I am not an expert pilot nor expert in assessing weather and flight risks. I have lived in SE Alaska most of 30 years, though. I agree that pre-selling flights may lead to problems; I have no direct knowledge of what penalties passengers may incur if they cancel because THEY think weather conditions are marginal--very likely, they themselves do not know much about the dangers of fog, rain, and flying in mountains in small planes. I'd like to think that air tour operators are always making the right decisions about when to fly and when not, but economic incentives and safety may go in opposite directions. I have too often seen aircraft flying on days when I personally would not choose to fly. We who live here all have friends who have been lost in air crashes, often weather-related air crashes. We know .. but tourists don't.

Well, enough said. Go back to 1996 levels or reduce landings by the percentage that would bring the number to what 500,000 passengers per year would need, assuming NO increases in advertising/promotion/marketing, and--most important!--allow operations 6 days a week, but NOT ON SATURDAYS. That's my basic comment.

Thank you.

Sincerely,

Joe Sonneman



COASTAL HELICOPTERS, INC.

LOCATED ON THE JUNEAU AIRPORT
8995 YANDUKIN DRIVE JUNEAU AK 99801
(907) 789-5600 . FAX (907) 789-7076
e-mail: coastal@gcd.net

September 12, 2001

Mr. Pete Griffin, District Ranger
Juneau Ranger District
8465 Old Dairy Road
Juneau, AK 99801

Dear Mr. Griffin:

First of all, I appreciate the hours of toil you have put into the Draft Environmental Impact Statement concerning Helicopter Landing Tours on the Juneau Ice Field.

The fourth paragraph on page 1-10 is the most important statement this document makes. You, the USFS should make your decision based on information contained in that area you have control over "The National Forest." As you point out, you have no control over aircraft except for the landings on National Forest Land. Let the other agencies take action if they decide action needs to be taken. It is out of your areas of review and the USFS should stay out of it. That having been said, I have the following comments.

The study is inadequate in the economic area. I cannot find any information in the DEIS as to the effects Alternative "A" vs Alternative "F" will have on my business, my employees or the community. What will the tax effects to Juneau be if no helicopter landings are allowed on the Juneau Ice Field? The one short paragraph I have been able to find in the DEIS does not cover the economic effects each alternative could have on the community. What will the financial effect be to those people that would visit Juneau with the intent to walk on the ice by helicopter transportation vs another mode of transport?

P 1-9 addresses Purpose and Need. The tens of thousands of visitors that come to the Ice Field each year demonstrate a great need for the activity. Their numbers alone far surpass the number of people that are opposed to allowing Americans and visitors from other countries the freedom to view and stand on a glacier.

JW
1

JW
2

JW
3

JW 4
P1-18 deals with "Quality of Life." I cannot find a definition in the document. I can assure you that my employees believe having a job and being able to feed and care for their families is a desirable "Quality of Life". A retired person may have a complete different definition. This phrase should be deleted from the document or it should be defined.

In order for any business to survive it must have an ability to grow. Your proposed action will not allow that. I would recommend Alternative F or even G.

JW 5
I support the hours of operation the proposed action allows.

Your proposed days of operation do not compute. The new areas are not where most weekend hikers trek, so why limit landings on weekends or at any time for the new proposed locations? I support Alternative F. If you would like to evaluate a reduction on limited days; perhaps a restriction on some of the existing areas might be more appropriate. I would suggest a trial on at least one glacier and only that portion of the glacier where hikers actually are capable of accessing on weekends. This way you could get a count on the number of hikers that actually hike to glaciers.

JW 6
I support Alternative F for additional landing locations. I also support the use of Antler Lake with the 1,500 foot wild life buffer. One advantage of this proposal is each take off and landing at the Juneau Airport would be with different passengers which will reduce the noise effects on Forest Service lands as well as the non Forest Service Land.

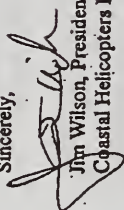
Antler Lake should be included in the proposed action. This area does not get visited often and when it is, it is primarily by floatplanes and helicopters. I know two people that dragged kayaks up to the lake once. They would not do it again. It is an area that is not used by locals except by motorized transportation.

JW 7
West Glacier, Herbert and Eagle trails should have the same buffers. The termination of all three of these trails are in semi remote recreation areas. The fact that one of the trails crosses special interest lands should not make a difference. The West Glacier Trail actually continues up to Mount McGinnis. Since you are concerned with USFS land, what difference does it makes who maintains the trail? Being non-USFS maintained was given as a reason for this distinction at the September 6th meeting.

JW 8
I support all the proposed expanded areas. North to Haines, Eagle Glacier, Death Valley and Antler Lake landings. The separate analysis for site specific review of plants, wildlife and the effects humans will have should be done for Antler Lake, God forbid if we allow a human beings to effect our environment.

I support Alternative E with changes I have noted contained in Alternative F. Thank you for the opportunity to submit remarks on behalf of the employees of Coastal Helicopters on the Draft Environmental Impact Statement.

Sincerely,


Jim Wilson, President
Coastal Helicopters Inc.

REC'D SEP 25 2001

KAS
COMMENT FORM
Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name K. Aaron Strutz
Address 611 Good St. Apt #12
City, State, Zip Juneau AK 99801
e-mail address _____

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☒
Alternative G ☒
Significant Issues ☐
Noise Impacts to Residents ☒
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☒
Impacts in New Areas ☒
Economic Uses ☐

My Comments

I HAVE PERSONALLY FLOWN + LANDED ON THE ICE FIELD THIS LAST SUMMER AND HAVE SEEN NO DAMAGE TO THE ICE OR SURROUNDINGS. EVEN AFTER LANING IN THE SAME SPOT DAY AFTER DAY FOR 2-3 WEEKS, I'VE NEVER EVEN SEEN PREVIOUS MARKS FROM THE LANDING GEAR. ANIMALS DON'T EVEN REACT, GET UP, OR TURN THEIR HEADS WHEN 3-4 HELICOPTERS FLY OVER. ON A DAY OFF IN GOUDTOWN JUNEAU, I'VE CALLED IN TO SEE IF OUR HELICOPTERS WERE FLYING BECAUSE I DIDN'T NOTICE ANY. (AND YES, THEY WERE FLYING) AS FAR AS INCREASING THE NUMBER OF FLIGHTS/LANDINGS

ONE...

My Comments

TO/FROM THE ICEFIELDS, I THINK THE LIMITING FACTOR WILL BE THE CRUISE SHIPS THEMSELVES. JUNEAU CAN ONLY HANDLE UP TO 5 LARGE SHIPS. TAIL MEANS THERE IS A LIMITED NUMBER OF PEOPLE WHO CAN NOT ONLY BE POTENTIAL PASSENGERS, BUT WHO WILL TAKE A HELICOPTER RIDE. (THE ENTIRE HELICOPTER TOUR BUSINESS IS BASED ON THESE CRUISE SHIPS). JUST BECAUSE # OF LANDINGS THROUGHOUT THE ICEFIELD COULD BE INCREASED DOESN'T MEAN THAT WOULD NECESSARILY HAPPEN. IT WOULD JUST GIVE US MORE OPTIONS FOR CONDUCTING TOURS, AS WELL AS AUGMENTING THE PUBLIC TO SEE MORE OF THIS NATURAL BEAUTY. AND ITS BEAUTY HELICOPTERS ARE THE CLEANEST WAY TO TOUR THESE AREAS AND DO THE LEAST AMOUNT OF DAMAGE (IF ANY) TO NATURE. THE INCREASE PROPOSED IN EITHER ALTERNATIVES F OR G WOULD NOT SHOW ANY SIGNIFICANT CHANGES TO HOW THINGS ARE TODAY. IT WOULD ONLY ALLOW THE PUBLIC TO SEE MORE OF THE JUNEAU ICEFIELDS.

KAS-2

KAS-3

KB

REC'D SEP 25 2001

September 20, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Dear Ms. Hall:

Thank you for the opportunity to comment on the U.S. Forest Service's (Juneau Ranger District) Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement (DEIS). I am a concerned resident of Juneau, Alaska.

As stated in the DEIS the decision to be made is whether or not to issue special use permits for helicopter landing tours on the icefield and, if issued, the authorized locations, levels of use, and types of activities covered under the permit(s). The Juneau District Ranger will also determine any mitigating measures that will be required.

The Forest Service acknowledges in the DEIS the continued increase in cruise ship traffic, which supplies the majority of the client base for the helicopter tours, and as a result a proportionate increase in the number of commercial helicopter landings on the Juneau Icefield. The tourism influx to Alaska in general and via cruiseships to Juneau is not projected to decrease in the near future. While this supplies a substantial client base for the commercial helicopter tour industry in this city, unchecked growth in commercial helicopter use is not reasonable or healthy for the community, its citizens, the environment, or its wildlife. Limits must be placed on the growth of this industry. Also, while flight paths may not be under the jurisdiction of the USFS, the City and Borough of Juneau and the Federal Aviation Administration should also be encouraged to place more neighborhood-friendly restrictions on the flight paths of these tours.

Commercial helicopter tours significantly adversely affect the quality of life for many of the people who live in this community, while benefiting few. This activity also negatively impacts the wildlife who depend on these surroundings for survival. The helicopters transit virtually every populated area of this town. There is essentially no room to maneuver within the boundaries of town or in time of day or week outside of their influence.

Restrictions on this impact must be achieved. I support your Alternative B which would reduce the landing levels to the 1994 use level of 11,881 landings as well as limit the period of the day (8:30 am to 6:00 pm) and days of the week (5) that helicopter tours are permitted to operate. I believe the use areas should also be restricted to leave some area impact-free. I do not believe

this is asking too much.

Helicopters are noisy machines. They invade the peace and quiet of our surroundings without leaving an option for those below them to escape. This peace and quiet is why many of us chose to live in such a place as Juneau. We are affected morning, noon and evening, while at work, in our outdoor recreational activities and, indeed, while inside our own homes. The fact that these commercial tours can impinge, unrestrained, on the very existence and activities of the local citizens is objectionable. They are not going to go away. Why not limit their use? Why not limit their use as a means of compromise to bring back some of the peace and quiet enjoyed by those of us who otherwise cannot escape their constant whir?

For one half of the year we are constantly bombarded by their presence. Given the layout of Juneau there is virtually no place in the Borough where local residents can escape from some level of noise generated by these helicopters. The USFS should make an attempt to place restrictions on the commercial operations so that we do have a means to be free from this noise impact. As residents we are unable, unfortunately, to accomplish this on our own.

I strongly encourage the Forest Service to seek a compromise for those of us who live here and who enjoy Juneau for its peace and quiet. I encourage you to adopt an alternative, such as Alternative B, that will restrict helicopter activity to core months, days and hours, and restricted locations. It should not be too much for residents to ask that a relatively small proportion of our daylight hours and our environment be free from the significant negative impact brought by these commercial tours.

Sincerely,

Kaja Brix
Kaja Brix

8830 N. Douglas Hwy
Juneau, AK 99801

cc: City Manager, CBJ

KH
Karla Hart
PO Box 22425
Juneau, Alaska 99802
907-586-2256

September 18, 2001 Corrected version

Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
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Ellen Hall
Foster Wheeler Environmental Corporation
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RE: Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

40 CFR 1502.2

- (f) Agencies shall not commit resources prejudicing selection of alternatives before making a final decision.
(g) Environmental impact statements shall serve as a means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.

KH 1
Section (f) is included as a reminder to the Forest Service as the helicopter companies start pushing for an extension of permits. Just say no.

KH 2
Section (g) - the document does not assess the environmental (and included social) impact of proposed agency actions and therefore should not be used as a basis for making (or justifying) any decisions other than to issue a supplemental DEIS that conforms with the full requirements of NEPA and all executing directives (e.g. the Code of Federal Regulations, the Forest Service Handbook, and the Forest Service Manual).

Purpose and Need

The statement of purpose and need is limiting and creates a bias to authorize levels of landings requested by helicopter companies.

KH 3
There is no proof that there is any specific level of demand for these tours. People have booked these tours, often in response to aggressive marketing and sales by the cruise ship. If there were limited tours and consequently less marketing, there would be less demand. Similarly, a higher price would produce less demand. Nothing about the tours is affordable to many of the visitors to Juneau already, raising prices to adjust demand is a normal thing to do in a market-driven

KH 3 (cont.)
economy such as the United States. The demand is actually from the helicopter and cruise companies seeking profits from these tours.

The purpose and need statement could better be stated in terms such as:

KH 4
The purpose and need for the proposed action (change your proposed action here) are to find an appropriate balance of community safety, property values, lifestyle and aesthetics and the recreation and tourism opportunities of the majority of National Forest users in the Juneau area (both commercial and noncommercial) with the helicopter and cruise tourism industries desire for permits to offer guided icefield tours that require frequent overflights of residential and recreational areas of Juneau.

This would allow for the consideration of a balanced range of alternatives that reduce and increase helicopter traffic, rather than the biased range of alternatives presented in this DEIS, only one of which offers any relief from flightseeing noise (excluding the No Action alternative which clearly was not given serious consideration).

Extension of Permits

To assure a fair and legal process of decision-making, the Forest Service should not extend the permits of the helicopter tour operators upon their expiration on December 31, 2001. The original five-year permit covered by the now-expired NEPA review of 1995, has already been twice extended without public review or comment (an appeal of the extension in 2000 by Cruise Control Inc/Robert Reges was denied). The permits issued were for specific periods of time and should have offered no guarantee of extension. Note specifically:

... If significant new information or circumstances have developed, appropriate environmental analysis must accompany the decision to reauthorize the special use. 36 CFR 251.64 (a).

Significantly as used in NEPA requires consideration of both context and intensity:

(a) Context. This means that the significance of an action must be analyzed in several contexts such as society of a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

(b) Intensity. This refers to the severity of impact...

1. Impacts may be both beneficial and adverse. A significant event may exist even if the Federal agency believes on balance the effect will be beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area...
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

Limitations on actions during the NEPA process.

(a) Until an agency issues a record of decision as provided in 40 CFR 1505.2 (except as provided in paragraph (c) of this section), no action concerning the proposal would:

- (1) Have an adverse environmental impact; or
 - (2) Limit the choice of reasonable alternatives.
- (b) If any agency is considering an application from a non-Federal entity, and is aware that the applicant is about to take an action within the agency's jurisdiction that would meet either of the criteria in paragraph (a) of this section, then the agency shall promptly notify the applicant that the agency will take appropriate action to insure that the objectives and procedures of NEPA are achieved.
- (c) While work on a required program environmental impact statement is in progress and the action is not covered by an existing program statement, agencies shall not undertake in the interim any major Federal action covered by the program which may significantly affect the quality of the human environment unless such action:

- (1) Is justified independently of the program;
- (2) Is itself accompanied by an adequate environmental impact statement; and
- (3) Will not prejudice the ultimate decision on the program. Interim action prejudices the ultimate decision on the program when it tends to determine subsequent development or limit alternatives.

1506.1

Since the 1995 environmental impact statement on helicopters was issued the context within the community has changed (note the heightened level of local government attention to the flightseeing noise issue and the change in community and government attitudes towards cruise ship-related impacts on the environment, including air and water quality issues, and the economic impacts on the community as evidenced by the overwhelming passage of the \$5 passenger fee). Further the intensity of flightseeing activity has changed dramatically (see DEIS Table 1-1), understanding of the complex array of health and communications impacts of noise is increased and evidence in literature better established, though a further research is required for a complete understanding of the degree of these risks. Unique physical characteristics of the Juneau area with respect to noise are better understood following the work of Paul Dunholter for the city (mountains, water, cloud cover, high humidity). The degree of controversy regarding risks to the quality of the human environment is undisputedly high (note the 2000 citizen initiative re flightseeing noise which generated 2165 signatures and 3156 votes to restrict flightseeing).

A decision to renew permits before the completion of a complete NEPA process would further establish a precedent from the renewal of the past two years and would represent a decision in principle about a future consideration. According to the (unaudited ?) reports of the helicopter permittees, they have not yet reached the maximum allocated number of flights under the 1995 EIS. Extensions of the existing permits are in their favor as they can continue to grow their number of flights each summer. Further, since their operations are all self-reported, the public can only speculate as to whether their reporting is accurate and honest. A reduction in the number of flights has been the primary solution to the noise problem proposed by the public in

various forums over the years. Technology for quieter helicopters is not realistically available in the future covered by the upcoming DEIS and the use of the Fly Neighborly program has not provided sufficient, if any, relief. During the CBJ/FS sponsored mediation effort, the helicopter companies refused to allow any discussion of reduction of landings to be considered. The companies have demonstrated that they are unable to fly the routes they have published in their Juneau CBJ voluntary compliance materials (as evidenced by personal observations and reinforced by discussion of the CBJ tourism staff and the CBJ Assembly Policy and Planning Committee meeting of July 2001). Forest Service District Ranger Pete Griffin has already demonstrated bias towards the companies as he quietly extended their permits during the midst of the mediation attempt and made no public effort to encourage them to consider a reduction of flights as a topic of mediation. Further, he allowed issuance of the current DEIS which has several areas demonstrating bias towards the helicopter companies (this will be discussed later in my comments).

Purpose of an Environmental Impact Statement 40 CFR 1502.1

The primary purpose of an environmental impact statement is to serve as an action-forcing device to insure that the policies and goals defined in the Act [NEPA] are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.

Unfortunately, this DEIS does not provide a full and fair discussion. As an example of some of the biases of the authors (this is not inclusive):

- Area Residents, pages 3-1 to 3-2, is incomplete in describing social characteristics of the community and shows the bias in the selection of the concluding paragraph, with the dismissal of aircraft noise relative to barking dogs and as "the sounds of summer." Any professional writer should know that one ends with a persuasive argument towards a point of view.
- The discussion of mediation results, pages 1-29 to 1-30, touts mediation with irrelevant examples from other cities, an inaccurate/incomplete description of the halt of the mediation (in large part due to difficulties surrounding the unwillingness of the helicopter companies and Forest Service to hold open meetings as required under state law and upheld by a judge). The Forest Service has not been continuing to work cooperatively with all parties to develop feasible solutions. The solution that would have provided concrete results in reducing impacts of noise, reducing the number of flights, never was on the table due to the industries' unwillingness to allow this as a discussion option. The listing of the "specific elements" in the DEIS is a waste of paper. There is no analysis and the information is meaningless. 40 CFR 1502.2(a) The one citation of the success of the Seattle mediation (Brown) is from a mediation magazine. Effort to investigate affected community attitudes towards the ongoing airport noise issue would have produced different information. <http://www.frbarnes.org>
- There is no mention under Mitigation Recommendations of the citizen initiative to limit helicopter flights. Although it did not pass, it garnered more than the required 2,165 signatures and 3,156 votes in the face of aggressive and well-funded opposition. The community effort to draft, circulate and promote a ballot initiative is substantial and

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heading for discussion in staff documents and committee deliberations. As samples, I submit an August 8, 2001 memo re a dog kennel (due to noise the planning staff recommended allowing 8 dogs rather than the requested 16); an April 17, 2001 memo re a boiler building near the Princess Dock (where the CBJ imposed specific conditions to reduce noise impacts, following a professional noise analysis); minutes from a November 14, 2000 Planning Commission meeting regarding a mining operation (see page 7, condition no. 8, if noise levels exceed those predicted the operations shall stop until mitigation is implemented so that noise levels at receiver locations in Douglas do not exceed certain measured dBAs. The Community Oriented Policing and Problem Solving (COPPS) newsletter notes "Residents of any neighborhood may share many of the same concerns and fears, such as: ... Noise - Unwanted noise can include loud music, automobiles, motorcycles, off-road vehicles, loud talking or arguments, even barking dogs." <http://www.juneau.org/cbj/newsletter/spring99/police.htm>

Adequacy of this DEIS 40 CFR 1503.3 and Agency Responsibility 40 CFR 1506.5

If the document is prepared by contract, the responsible Federal official shall furnish guidance and participate in the preparation and shall independently evaluate the statement prior to its approval and take responsibility for its scope and contents. 40 CFR 1506.5

The DEIS gives no evidence that the agency had the capability to comply with the requirements enumerated in 40 CFR 1506.2, nor apparently did their contractor. There is a general lack of data. In many cases this is because adequate data is not available and should have been collected during the several seasons during which the DEIS has been under consideration or preparation by the Forest Service. Much of the data relating to recreation use and impacts, social impacts and wildlife impacts needs to be collected during the summer when flightseeing is underway. Since the Forest Service has not done so they have seriously undermined their ability to complete this analysis in compliance with NEPA in a timely fashion. Other information as it relates to the analysis is simply missing. Whether the Forest Service has this information from the applicants or not is unknown but the public does not have access to the information in the DEIS. What flight routes have been used at what levels in the recent years? How well have the operators been able to comply with the flight routes? Under what conditions do they vary? What have been the use patterns at the enclaves and minor development sites to date? What are the actual flight routes flown, mapped with elevations... this data could have been gathered easily using a recording GPS... the Regional GIS office has the capability and offered direct to Pete Griffin to do such recording and mapping, the CBJ has recording equipment as well but no request was made to access this equipment nor to follow up after being made aware of the equipment (granted, late in the season but with time to act). Is the Forest Service unwilling or uninterested in getting details from the operators? Are they unwilling to provide information or to assist with data gathering? Whatever the circumstance, resolution of noise problems from flightseeing has been hindered by a lack of solid information for many years. How many aircraft by what operator? Are the aircraft owned or leased (and thus readily removed from a fleet with a reduction in flight allocation)? How many flights per day on peak, typical and slow days? What portion of flights now flown are flightseeing only with no landings? What is the market for such flights? This could be relevant if the Forest Service reduces landing allocations. In the document there is the threat that if landings are reduced we will have tours flying all over with no controls because they don't land. Is this credible?

There is no social analysis as specifically required by the Forest Service Manual and Handbooks, sections 1900. During the public meeting in Juneau the representatives of the Forest Service and consultant present gave no indication of having any familiarity with this requirement or the Forest Service's Economic and Social Analysis Handbook (FSH 1909.17).

Forest Service Manual section 1973.03 mandates social impact analysis if potential social effects of agency policies or actions are important to the decision. (FSH 1909.17, Chapter 30.1(3)). Social variables are explained and listed in Chapter 33, including esthetic and amenity ties to forest lands, attitudes, beliefs and values, social organization, land-use patterns, lifestyles, recreation preferences, degree of privacy/isolation, relationship of lifestyle to infrastructure and forest resources, public conceptions of appropriate uses of forest land, scope and intensity of demonstrated support or opposition to the proposed action, customs and traditions in the affected area, local perceptions of incoming workers, recreationists, or retirees with different lifestyles, attitudes about economic development by outsiders, social organization...

The DEIS does not meet the requirements outlined in the Economic and Social Analysis handbook. There is no indication of a systematic analysis of social variables, or of a systematic data gathering process. Data cited in the DEIS is incomplete and inadequate.

Consider all affected people. Consider the social effects of an action and its alternative on each potentially affected group or category of people. Do not limit social analysis to the concerns of organized interest groups ... FSH 1909.17, Chapter 34.42.

I would suggest that the affected people could be divided into the following groups for purposes of analysis:

- 1) residents with homes under actual flight routes
- 2) residents with homes that are not under actual flight routes or who are otherwise unaffected by the noise
- 3) cruise passengers taking helicopter or other flightseeing tours
- 4) cruise passengers NOT taking helicopter or other flightseeing tours who are subjected to the noise of the helicopter tours.
- 5) non-cruise tourists, visiting friends and relatives, business travelers, and short-term residents (e.g. legislative).

Exposure to the flightseeing noise is different for each of these groups of people, as are the impacts. A comparison of household income between all cruise passengers and those who took helicopter tours in 1999 shows that there are different economic characteristics as well. The following table was compiled using the McDowell Group helicopter customer survey (cited in the DEIS) and data from InterVISTAS Consulting's 1999 Vancouver-Alaska Cruise Passenger Study (as cited in Egret Communications, 2001, Working Paper, Juneau Tourism Project).

Income (1999 surveys)	Cruise	Heli-Tour
\$100,000 +	26%	45%

\$80-\$99,999 12% 21% (\$75-100k)
\$0-\$80,000 62% 33% (\$0-75k)

As you can see, while on one-quarter of those on cruises had household incomes of \$100,000 or more, almost one-half of those on the helicopter tours did. Sixty-two percent of cruisers had incomes of 0-\$80,000, yet just 33% of heli-tour passengers had incomes of less than \$75,000. Wealthy people on the cruises have the disposable income to take helicopter tours, those less wealthy are subjected to the noise pollution of the helicopters as they visit the Mendenhall Glacier, or elsewhere in Juneau on a less expensive tour such as by bus, raft, hiking, canoeing, or biking or on their own.

I do not have at hand a comparable breakdown or year of household income numbers for Juneau residents but expect we will find them to be more in line with those on the cruises in general than on the heli-tours, especially given that there are a substantial number of residents living in poverty or at levels that do not allow them vacations at all. Data from 1995 (found in the Juneau Parks and Recreation Comprehensive Plan) show a median household income of \$47,924 and that seven percent of Juneau residents were living in poverty. This data was obtained from the Research and Analysis Division of the Alaska Department of Labor.

The CBJ Flightseeing Noise Study Public Meeting Questionnaire, July 27, 2000 (posted at <http://www.juneau.org/planpolicy/flightnoise/questionnaire3.htm>), while not scientifically administered, provides indication of the range of social impacts of the flightseeing noise on the community. Flight noise was reported to affect outdoor speech communication, outdoor activities, business activities, sleep and/or relaxation, indoor speech and communication, and sense of natural quiet and remoteness.

What does this EIS cover?

The title states that it has to do with Helicopter Landing Tours but there is no detailed description or analysis of the land operations of the operators in the document. Are the land operations, dog sledding, etc. covered by this document? If so, information needs to be provided in a supplemental DEIS with full descriptions and details. If not, why not? Aren't these operations part of the cumulative impact of the tours?

Coordination with Other Public Planning Efforts 36 CFR 219.7

Discussion of possible conflicts between proposed action and objectives of Federal, State and local land use plans, policies and controls for the area concerned. 40 CFR 1502.16(c)

Although the landings occur strictly on the Juneau Icefield and at the heli-ports, under FSH 31.41 the DEIS must look at the "Area of Influence" which is large enough to include people most subject to direct or indirect social effects. They suggest that boundaries should be along county lines when feasible. The 2002-2006 EIS boundary does not fulfill this requirement and should be redrafted to include at a minimum all of Douglas Island (since some flights are proposed at some times down the back of Douglas) and the entire watershed of the Taku River that is within the borough as noise from the helicopters extends over to the Forest Service and private cabins on the south side of the river.

Within this area of influence there are other planning efforts that should be considered. The Juneau Parks and Recreation Comprehensive Plan has a chapter on community characteristics that describes unique aspects of Juneau and Juneau life.

Another document that should have been consulted in preparing the DEIS, and may have provided insight into social attributes of Juneau is the Alaska Department of Natural Resources (1993) Juneau State Land Plan. This plan outlines land management plans for all state land in Juneau. I do not have a copy at my disposal while preparing these comments but note that the Forest Service is required by 40 CFR 1502.16(c) to have considered this information.

The Mendenhall Recreation Area plan by the Forest Service was developed following another public process. The recreation area is intensely impacted by helicopter noise. Compatibility of this noise with the objectives of management should be considered.

The Juneau Comprehensive Plan (1996) guides development patterns within the City and Borough of Juneau. Policy 3.15 states: It is the policy of the CBJ to minimize the exposure of citizens to the harmful effect of excessive noise, and to control the level of noise pollution in a manner which will be compatible with commerce and public safety; the use, value and enjoyment of property; sleep and repose; and the quality of the environment.

Energy Requirements and conservation potential of various alternatives and mitigation measures 40 CFR 1502.16

This requirement is not met. Helicopter tours use energy, as do their support activities.

Alternative tours such as hiking, rafting or bus tours are less energy intensive (since all of the tours already involve a bus ride).

Cost-Benefit Analysis 40 CFR 1502.23

Although there is no formal effort to do a cost-benefit analysis in this document, there are several references to monetary impacts. For example, on page 3-1, the "rough estimate of the contribution of helicopter landing tours to the economy," and on page 4-5, estimates of loss of revenue, dollar figures are applied to the helicopter tours. With respect to housing values, also on page 4-5, no effort is made to obtain data to quantify the potential impact.

For the purposes of complying with the Act [NEPA], the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations. 40 CFR 1502.23

Although there are additional monetary considerations that could be taken into account, data does not readily exist with respect to noise impacts on housing values, displacement of residents adversely impacted by the noise (both temporary and permanent), and displacement of tourists (especially independent visitors who leave early, fail to come, or fail to return due to the noise). Many critical issues that have been raised with respect to the helicopter noise are in fact qualitative (for examples see Tourism Advisory Committee. 1999. Citizen Information Gathering

Meeting: Assessing the Impact of Flightseeing Noise, Draft Meeting Summary, November 17, 1999) and therefore a cost-benefit analysis is inappropriate.

At the public meeting in Juneau, Ellen Hall acknowledged that she was the person responsible for the "rough estimate" on page 3-1 and she could/would not defend her numbers. My review of web sites showed helicopter tours prices of: Northstar \$305 for the trek and \$178 for discovery; Tensco \$169 for standard, \$239 for pilot's choice and \$250 for hiking; ERA \$195 for standard and \$329 for dog sled. None of these numbers provides a clear idea of where the stated approximately \$250 derived from. Her figure on the commission apparently came from the Juneau Convention and Visitor's Bureau but the validity of this figure is not known either. The Forest Service has a responsibility to report accurate figures and to provide sources and methodology for information cited (e.g. a weighted average)

Trail data.

The Forest Service has been lax for many years in not establishing accurate counts on Juneau trail use. The estimates on page 3-3 are not supported by the survey data gathered in 1995 by the Juneau Parks and Recreation Planning random digit dial survey of 400 Juneau households (Juneau Parks and Recreation Comprehensive Plan July, 1996). Hiking was found to be Juneau's favorite leisure activity.

44% of respondents stated they had hiked East Glacier Trail in the past year (1995). That year the population was 29,755. Although the survey was just of adults I will assume that adults in households with children would take the children hiking and therefore simply take 44% of the population which would give 13,092 residents hiking East Glacier Trail at least once. As a frequent East Glacier walker (up to 40 times per year), I know that there are other frequent walkers I meet on that trail. And, many tourists. Making for a much higher estimate of the number of user days annually. The Forest Service estimated 8,200 users annually in 1995.

Similarly 34% stated they had hiked West Glacier Trail - 10,123 vs. 5,150 14%Spaulding Meadows - 4,168 vs. 2,550 (Spaulding/Auk Nu combined)

Survey numbers indicate that Forest Service observational estimates of trail use in Juneau are largely understated.

The discussion of noise effects on recreationists is incomplete and not applicable. Having reviewed the original documents used in calculating the NPS curve shown on page 4-11, I know that it does not apply to resident Juneau trail users. The subjects in the NPS studies were all visitors with limited exposure to the aircraft noise and the frequencies of aircraft noise described in the literature in no way approximates the intensity of noise we have here (flights of helicopters every 15 minutes) nor the expectations of locals who have lived here prior to the introduction of helicopter tours who know what it should sound like vs. what it does sound like. This is a significant area of social impact that should be addressed with scientific, accurate, local data.

Throughout the DEIS use figures for 1999 are presented. Since the DEIS preparation was contracted to Foster Wheeler well after 2000 numbers should have been submitted by operators,

and in any event the final DEIS not published until July 2001, it seems reasonable to expect that actual 2000 numbers be included. For the FEIS, an analysis that includes actual 2001 numbers would be expected as people are best able to remember the conditions of the summer immediately preceding as a few summers prior.

Changing the season of consideration from May 15 to September 15 to May 1 to September 30 results in a skewed and biased analysis. During 1999 and 2000 there were ships arriving before May 15 and after September 15. If weather allowed and there were bookings, tours were flown. These tour numbers should have been reported with the total numbers. Yet, with the "longer" primary use season, increases in numbers are reflected as decreases in operations due to the averaging. In fact, in the 2001 season, nine of the 15 days in early May had large cruise ships in port, and then just one or two ships except for two of those days with three ships. The last ship in September is scheduled for September 25. If you were to track the use numbers by day rather than by year, I expect that you would find proportionately fewer early and late season cruises are purchasing helicopter tours at all. These "shoulder" cruises tend to be heavily discounted and attract people without much disposable income. If you have just afforded a \$500 Alaska cruise, you may not have money for a \$150-\$350 hour or two long tour.

Trail buffers - these seem like another token offering or red herring or something.... Are there trail buffers now? How much good does this do since they can still be flying right over the top. I tried to pull together a detailed picture of this but the index was worthless (again) and my interest in commenting on minutia of this poorly prepared document waning.

Impact on other recreational and subsistence activities

Noise from the helicopters extends throughout the Juneau area, impacting the activities of berry pickers, kayakers, fishers, bird watchers, joggers, hunters, those seeking quiet meditation or enjoyment of nature, musicians wanting to play outside, picnickers, etc. whether on Forest Service lands, CBJ lands, state lands, the Mendenhall River and wetlands, the Gastineau Channel, the Mendenhall Visitor Center area, the new sport fishing dock near DIPAC, Sandy Beach picnic area (a gathering place for sports activities, community celebrations, etc.), or bush whacking through the forest. How much displacement is there? How much degradation of experience? How much frustration at missed words or sounds? There is no adequate data to address this. A well designed survey or set of surveys would be the best way to reach residents for this information. For visitors, research would need to be done on site in some manner. A lack of data or difficulty in gathering is not an adequate reason for not giving full consideration to these impacts. What about campers at the Mendenhall Campground? Is their experience what they expected or is it polluted by the sounds of the helicopters? As managers of the National Forest, effort should have been made to conduct a careful survey of these National Forest visitors (or are they deemed "less valuable" than helicopter tour clients and therefore their experience is discounted?).

Recreation Opportunity Spectrum Compatibility

Since the Forest Service has a responsibility to manage all of the Forest Lands in a manner consistent with TLMP, consideration must be given to the ROS of the lands under and near the

proposed and ACTUAL flight routes of the helicopters. Permitting helicopter flights over ROS where sights and sounds of human activity are to be minimal is incompatible with the mandate to manage those lands. Consideration must be given to the experience of all National Forest users, not just those in the helicopters. The frequency and duration of experience should be taken into consideration as well. For someone exposed to helicopter noise all day, every day, for almost half of the year (the half when one can most be outside to relax and enjoy the environment without fear of hypothermia), should be given greater weight and significance than the whim of a cruise visitor here for six to 12 hours, having a one or two hour adventure.

Cumulative Impacts

The Forest Service should consider the cumulative impact of cruise tourism activities permitted on National Forest lands in the Juneau area. The noise and frustrations of the helicopter tours are for some part of a general frustration with the level of commercial tourism activities taking place throughout the community. Where locals could once picnic and enjoy the beach pullout at West Glacier trailhead, it has become a gated-privilege for the commercial rafting companies and their staging area. On the West and East Glacier Trails one meets large groups of guided hikers. On Herbert Glacier trail the guiding company drops clients off by bus!

The impacts of the helicopter flightseeing should also be taken cumulatively with the noise from the float plane tours that serve the cruise industry.

Environmental Consequences for Residents

General Health -- This section clearly illustrates a lack of concern for the community. There is extensive literature dating from the 1970s that shows that there are health impacts from noise exposure at levels less than 65 dBA. Although we may not be in the category of most exposure, since we exceed 65 dBA for "just 2 to 3 percent of the time," we certainly have enough exposure to warrant as much consideration as was given to goats, at least (I'm being facetious here--I would expect serious and thoughtful consideration). The Forest Service does not need to become health noise experts. Easiest would be to incorporate the findings of the cadre of experts who consulted on the World Health Organization's Guidelines for Community Noise <http://www.who.int/peb/noise/guidelines2.html>. By reference I incorporate this document which is readily available online.

"The Effect of Intermittent Noise Exposure on Wound Healing" from *Advances in Wound Care*, January/February 1996 found that intermittent noise exposure significantly impacted the healing of wounds in healthy lab rats. Studies on humans are not reported but the implications are clear -- both for humans and wildlife. We don't know all of the impacts of noise yet but it does have a physiological impact.

The American Psychological Association reports in Volume 29, Number 5, May 1998 of their newsletter that "Airplane noise may affect children's mental health." "They found children who lived underneath a flight pattern showed noticeable increases in blood pressure and the stress hormones epinephrine, norepinephrine and cortisol."

Given the evidence of human physical and mental health impacts it seems that to adopt the precautionary principle would make the most sense in terms of protecting the community from noise pollution associated with a leisure activity.

Classroom Learning Interference -- The WHO guidelines mentioned above provide guidelines here as well. Of particular note... noise is detrimental to learning not just of children in classrooms but of children in home school situations, day cares and other environments. With the extended tourism season helicopters are flying for greater portions of the school year (to say nothing of summer school). There is a large private school located immediately adjacent to Fred Meyer where the decibel reading of 63 would not be noticeable different to a person from 65 db. No doubt on sunny spring days when classes would have once moved outside for poetry, writing, reading, etc., they must now remain within their classrooms to maintain a learning environment. Dismissal of impacts for anywhere because it falls within a hair's breadth under some critical limit is not in compliance with the spirit or intent of NEPA in assessing impacts.

Sleep Interference -- Here again, a dismissal without facts or true consideration. WHO guidelines indicate that areas where pre-school children and daycares have naps should have night-time sound levels during nap times. Within Juneau there are many people who work shifts and must sleep during the day. These include: police, fire, hospital, prison, and maintenance personnel, taxi drivers, commercial fishermen, social workers, miners, etc. No attempt is made to quantify this or assess the impacts. Elderly, sick and hospitalized people also nap and are thus subject to daytime sleep interference.

Communication Interference -- Interference with communication is acknowledged and summarily dismissed in two sentences. What about language acquisition for children? Safety? Doing business? Studying? Socialization? Studies have shown that noise-induced communication interference can result in asocial behaviors. Is the thrill of an hour or two tour for some tourist of greater value than learning, communicating, hearing a child's first word, or a call for help, or a dying person's last word? The Forest Service is not in compliance with 40 CFR 1502.23 if this information is not fully taken into consideration, even though it is qualitative and not easily quantified, and certainly not into a dollar figure for a cost-benefit analysis.

Annoyance -- Juneau data is needed on annoyance. Our community is not a typical urban community and our relationship with the surrounding environment is much closer than many communities. The trails nearby may not be designated wilderness but until the advent of helicopter tours, they had a strong wilderness character. To explain problems with the Schultz/Finegold curve I recommend reading "A Citizen's Guide to Air Force Noise Modeling" by Dr. William Weida <http://www.noradiation.org/news/weida/DAHOMOA.html> and incorporating this information into the supplemental DEIS (along with local data of relevance to this DEIS).

Susan Staples, "Public Policy and Environmental Noise: Modeling Exposure or Understanding Effects," *American Journal of Public Health*, December 1997, Vol. 87, Issue 12, p2063, 5p

This paper argues that if the federal government is to successfully protect the public from the adverse effects of environmental noise, its policies will need to be informed by a scientific understanding of the psychological and social factors that determine when noise

results in annoyance and when noise may affect health as an environmental stressor. The over reliance of federal agencies on mathematical modeling of average group responses to physical noise levels is discussed as oversimplifying and limiting the understanding of noise effects in crucial ways. The development of a more sophisticated information base is related to policy needs, such as the need to make accurate predictions about the annoyance of particular communities, the need to understand relationships between public participation in noise abatement efforts and annoyance and the need to identify populations that may be susceptible to stress-related health effects.

Wildlife

From the literature reviews I have done with respect to noise impacts on wildlife, I have observed that we do not have enough information to clearly know the impacts. Communication can be impaired for song birds, predation can be altered for any species, the presence or impacts of stress on health is not known (stress tests can be done by checking stool samples for the presence and concentration of adrenaline). Are we stressing animals just enough to make them vulnerable to some disease or other stressor at some point? Have we displaced wildlife? What impact does the noise of the helicopters have on marine mammals? How does the noise travel under water? I know that for myself, on days when the helicopters are flying low and directly over my home, if I am concentrating on something I will often notice my stress reaction before I am consciously aware of the sound or vibration.

Mitigating Measures

How is it that there are no mitigating measures for Juneau residents in their homes, schools, at work, etc?

The Juneau Icefield Research Program warrants special mitigating measures to avoid unnecessary disturbance of their activities, but no other activities of humans warrant such care? "Frequent helicopter tour traffic disturbs the educational setting." I am not going to argue with that, in fact I completely agree. However, the same applies for all other areas subject to frequent helicopter traffic. Will the operators work with the community to avoid any active home, school, ballpark, or outdoor wedding? In one section the noise problem is acknowledged and addressed, for one select group and activity.

With respect to recreation mitigation, making an area off-limits to helicopter landings is not adequate mitigation. Areas must be made off-limits to overflights. While working in the Mendenhall Valley this summer I noted that in the heart of the valley, in what would otherwise be quiet residential neighborhoods, I could almost continually hear the noise of helicopters. When the helicopters climbing up Thunder Mountain and the helicopters cutting in from their designated route to skim along the edge of the Mendenhall River far above Montana Creek happened to sync up the noise was especially annoying. Conversations with residents in their yards were not possible when the returning helicopters passed by.

The "one exception" to the 1500-foot recreation resource buffer includes two of Juneau's most popular hiking trails and two other well-used trails. This should be listed as four exceptions. Further, while at Peterson Lake cabin on a sunny day this summer I noted that the helicopters going over Spaulding on this route were mildly audible and certainly visible.

Specific comments (Page no.): Note that this document is so poorly prepared that at some point I gave up trying to address every error or problem... from the maps being out of date with Forest Service transfers of land to the CBJ to facts and biases. I spoke at length with Laurie Thorpe in August and pointed out some of the problems for which she took notes.

(1-1) There is mention of mechanized snow vehicle expeditions on the icefield in several parts of the EIS but no detailed information as to who is proposing this activity, what it entails, etc. Without specifics it has the appearance of being an activity that is not actually planned but thrown out to use as a bargaining chip. Any activities associated with mechanized snow vehicle expeditions would certainly require an in-depth environmental analysis - all mention of such mechanized snow vehicle expeditions should be withdrawn unless there is inclusion of specific details, plans, etc. included within a supplemental DEIS, allowing for comment on the proposed activity. Piecemeal permitting of helicopter-related tourist activities on the icefield should not be allowed, nor acceptance of any alternative that includes mechanized snow vehicle expeditions be perceived as authorizing or endorsing said use.

(1-5) Noise is the cause of primary concerns relating to the operation of helicopter tours. A helicopter flying to the Juneau Icefield with tourists sounds exactly the same as a helicopter flying to a non-icefield location. Permitting of all helicopter tour landings should be considered in one comprehensive and cumulative assessment. If the other proposed tours are not prepared to be included within this analysis then they should be denied (or "frozen at current levels" of zero) until the next cumulative helicopter tour planning process can take them into consideration. There is precedent for this at the Mendenhall Glacier Recreation Area when commercial interest in guided hiking increased. Permitted hiking activities were frozen at ACTUAL use levels until completion of the new comprehensive management plan for the recreation area.

(1-6) A correction on the history of the tours. The "public demand" for helicopter tours was created through the aggressive marketing of said tours. Prior to 1984 helicopters were available for charter in Juneau but "public demand" for tours did not exist. This demand is a fabrication of the helicopter and cruise industry creating the highly profitable helicopter tour as a must do activity for cruisers to Alaska.

As an employee of TEMSCO during the summer of 1984 I know that I regularly answered calls from residents complaining about the noise of the helicopters. As a local hiker, even those first summers, I altered my hiking plans to avoid areas under the flight route. Because cruise ships did not call on Juneau every day in the 1980s, and because not all cruise ships had contracts to sell helicopter tours the first couple of summers, I knew when I could hike where to still enjoy natural quiet.

Even today "public demand" is generated through aggressive advertising, public relations and shipboard sales. Consideration should be given as to whether manufactured public demand warrants priority for allocation of a public resource, at the expense of others.

Also, there is "public demand" for quiet from Juneau residents, and I expect, if anyone asked, from a large portion of the other National Forest visitors. The DEIS does not provide a

KH 48 (enl) satisfactory explanation as to how the "public demand" of the helicopter industry and their clients provides precedence over the "public demand" of others.

The helicopter industry explains that they provide access to the icefield to people who would not otherwise be able to experience this aspect of the National Forest. For most of those, the reason for inability to otherwise access would relate directly to a matter of priorities. Seeing the icefield without the assistance of a helicopter would not be of enough importance to warrant the physical and time investment necessary.

KH 49 Looking at the Tongass National Forest Helicopter Access Customer Survey (McDowell, 1999) we see that 40% of the customers survey first became interested in an Alaska glacier experience as a result of cruise ship marketing and 40% from a friend or relative's recommendation. These are not people who have been dreaming of walking on the Juneau Icefield all of their lives, or even for years. This was an adventurous part of an Alaska vacation. Reduce the number of landing permits available, the cruise and helicopter industries will correspondingly decrease their marketing (and could increase their prices), thus public demand for the tours will decrease.

KH 50 (1-8) Details should be provided, rather than vagaries. For example, "the majority of these tours... very few are overnight, 1- to 3-day treks." Provide specifics, either by percentage or numbers. And, it would be useful to know what part of each tour is spent in the air and what part on the ground/icefield. Tours that maximize time on the icefield relative to flight time will be able to generate more revenue/jobs with less noise impact on the community and recreational users. A tour that lands for 20 minutes and spends 30 in the air is not equivalent to a tour that spends 2 hours or 2 days on the ice and 30 minutes in the air.

KH 51 (1-9) Are commercially driven tours meeting or driving public demand? Anecdotally I have heard of the aggressive sales tactics onboard cruise ships to book helicopter tours, probably the most profitable of all tours booked on the ships, given their prices.

Providing for visitor safety should include a guaranteed opportunity for visitors to back out of helicopter tours, without penalty, if the weather in Juneau is such that they are not comfortable flying. Right now visitors are pressured to book upon boarding in Vancouver, Seward or elsewhere, without an opportunity to know what the weather conditions will be. As evidenced by the four crashed tour helicopters on Herbert Glacier in 1999, the crashed Wings plane in Taku some years before that, the crashed LAB plane near Haines in July 2001, etc., tour aircraft are flying under conditions that are not prudent and safe. Many of the pilots have little experience flying in mountainous terrain with extreme weather conditions, and there is undue pressure for them to fly (as reported in recent surveys of Alaska pilots and in some FAA accident investigations). Many days that I see helicopter tours flying, I would not take an unnecessary flight, especially without knowing and trusting the individual pilot. Yet tourists are forced with the decision of flying when they may have valid safety concerns or not flying and forfeiting considerable sums of money. Is safety truly a concern, the individuals should have a reasonable option to follow their judgments and cancel without any penalty if the weather is marginal to their comfort levels.

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Using an industry press release as "documentation" of the popularity and quality of helicopter tours is absurd. They issue press releases to generate demand for tours, services, products, etc. That is a basic marketing strategy. The surveys are another element of marketing (and given the 19,000 respondents was likely an unscientifically administered convenience survey). Note that tour 2, the hike and float Chilkoot Trail, is a Skagway tour, not Juneau as noted. Also, other tours such as the rafting, hiking, Tram, sea kayaking, and Mendenhall Glacier were likely marred by the noise of helicopters and float planes obscuring the natural quiet. It is much more enjoyable to be in a helicopter making noise than to be on the ground listening to a parade of helicopters overhead.

KH 53

(1-10) I support the Forest Service decision to allocate the limited number of landings through a prospectus and bid award process. I hope that this process would give priority to locally owned companies, as they are most likely to be responsive to community concerns.

KH 54

(2-10) Under mitigating measures for safety (and to meet public demand for a quality tour experience) I suggest that the Forest Service incorporate into permit requirements some mechanism to allow pre-booked passengers (especially those having received what is often a "heavy sell" on the cruise ships) an opportunity to exercise their good judgment and choose not to take a helicopter tour on days of severe weather. The helicopters regularly fly on days when they are passing in and out of clouds in the Gastineau Channel. Many Juneau people have extensive experience in small aircraft in Alaska. Those with whom I have discussed the matter agree that we see tours going out on days when we would fly only under duress and then with pilots we know and trust. Given the record of small aircraft crashes in Alaska, including tour aircraft, crashing in incidents of poor visibility, concern for safety should allow people the option to exercise the option to cancel and receive a full refund. From the McDowell survey, we don't know if the people who felt not safe or not at all safe on the helicopter tours were those who were flying on days when that could have been a very valid observation! Days when the cloud cover is low are also those days when the helicopters are flying very low and are loudest in many homes.

KH 55

(4-5) The Forest Service has gone to great lengths to explain that you cannot restrict or regulate flight paths, yet here for the no action alternative you state "flight paths would not be restricted by the Forest Service." Would they or wouldn't they be elsewhere? Do you have authority or don't you. You can't have it both ways in the analysis, depending on what serves to justify your desired decision (also not in compliance with NEPA but the amount of bias makes it appear that you are doing just this, certainly a decision to not decrease the number of flights).

KH 56

Index

The index in this DEIS is scarcely usable. The Forest Service Handbook provides specific recommendations for indexing (FSH 1909.15 Chapter 62) that were clearly not followed. While this is certainly not grounds for throwing the DEIS, in terms of public usability, it hampers locating critical sections of the DEIS (or the absence of critical points). Items that should be indexed include: safety, health, hearing, communication, annoyance, hiking, and key terms from NEPA and the related statutes.

KH 57

-18-

- KH 63 (cont.) the yard and not be subjected to overflights of the frequency and duration associated with landing tours.
- KH 64 Of the Alternatives offered by the Forest Service (besides the No Action Alternative), only Alternative B makes any effort to respond to environmental and social impact issues raised in scoping and throughout the recent years of public process related to flightseeing.
- KH 65 The present actual use level is too high for community health, and esthetics, and enjoyment by residents and visitors. This means that alternatives C through G are unacceptable. The greater the use, the greater the unacceptability but NONE of the alternatives other than A and B offer relief to the community.
- KH 66 With respect to the trail end buffers and the "exceptions for safety in the early season," if the glacier elsewhere is not safe for landings early in the season perhaps they should not be landing – creating safety-related exceptions to extend the season is not acceptable.
- KH 67 The way that the alternatives are structured certainly implies that there exists some decision already made and by offering some token things to "give up" on alternatives D-G, a "compromise" can be reached that gives the industry what it really wanted in the first place.
- KH 68 Base levels should be from an ACTUAL use rather than a 1999 authorized use. The companies never met that amount (or if so did not acknowledge in their reporting) so we the public cannot know what that use would be. At lower levels we are saying too much. And, in 1999 80% of the flightseeing passengers in the McDowell survey said that the number of permits should be maintained, 2% said decreased and just 18% said increased. Motorized snow tours use is a "red herring" giveaway or else it should have been given serious environmental consideration in the EIS since it is a new use and one that could have significant environmental impacts. Allowing it to be included in this document without any further information is not in keeping with many sections of the Federal Regulations concerning NEPA.
- KH 69 The analysis by average number of landings per day and per hour is meaningless for purposes of analysis because it does not describe how the activity will actually occur. For the public to make a meaningful assessment of the impacts we would need to know how many landings there are now on a peak day, a "typical" day and a "slow" day. We would need to know how many landings per hour (realistically, we would need to know how many flights instead of landings since it is not the landings that impact us but the flights to get there). We would also need to know the character of those flights and the direction. Are they in flights of six or four or two? Are they heading in all directions or primarily to what locations? Despite all of the pretty maps and pages of tables, meaningful information for analysis is lacking.
- KH 70 The purported assessment of impacts for alternatives is not an assessment but generally a restatement of numbers and conditions
- KH 71 Through the magic of manipulating numbers, you are showing on table 4-1 a decrease in noise dB with alternatives that increase the number of landings. Did your staff reference the classic
- KH 58 Discussion of Alternatives.
- KH 59 As noted above, the range of alternatives considered does not meet the requirements of 40 CFR 1502.14 (c), to include reasonable alternatives not within the jurisdiction of the lead agency. Nonetheless I will address alternatives.
- KH 60 My first preference for an alternative is the NO Action alternative. I realize that there is little likelihood of this being adopted and therefore offer as my proposed alternative the Citizen's Alternative. A copy has been provided to Pete Griffin at the public meeting on September 6, 2001.
- KH 61 Number of landings: 11,881 (1994 reported actual use)
- KH 62 Hours landings can occur: 8:30am to 6:00pm
- KH 63 Days per week landings can occur: Sunday-Friday (6)
- KH 64 Days per season landings are allowed: 128
- KH 65 Maximum number of landings per day: 93
- KH 66 Landing locations: Same as now, no new areas.
- KH 67 Flight paths: designated "good" and "poor" weather routes for each permitted company. If these routes are not flyable at minimum altitudes required, flights are cancelled for the period of time until routes are safely flyable at minimum specified altitudes.
- KH 68 Other items: same as alternative B
- KH 69 Discussion: Most critically, this alternative provides the community with a known cap on the number of landings per day, and associated flights. The Forest Service already uses a per day cap at Pack Creek to protect the bears and the experience of those bear viewers who do receive permits. Permits not used on one day, for whatever reason, are not carried over to the next day. Before the booking season begins all of the commercial operators sit down and figure out their schedule. Using this method on the Juneau Icefield would allow the community to know that on the first nice day they won't be forced to "pay" for the previous days of less air traffic. This will give some sense of control and some boundaries to the operation that should help to alleviate the plethora of social impacts in the community.
- KH 70 Designated flight routes will prevent operators "shopping" for alternative ways to the icefield as presently appears to happen on some localized poor weather days. This moves extra impacts onto some neighborhoods or recreational areas and adds more aircraft to a corridor than normal, from differing operators, increasing chances of a collision.
- KH 71 Giving operators six days per week allows plenty of time to serve clients and pay for aircraft – yet allows one day per week off so that employees can remain rested, fresh and ready to offer a good experience to the visitors and maintain safe operations. This also allows the community to know that on Saturdays they can expect some degree of quiet, certainly relief from the helicopter landing tours. This allows for a day to hike ridges, the Mendenhall Glacier trails, or just stay in

KH
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(cont.)

book "How to Lie With Statistics"? The 30 days added to the season makes these numbers meaningless for analysis and dishonest for presentation of impacts.

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I wish to incorporate by reference my comments to the Forest Service on the Draft copy of the Acmetch study cited in this DEIS. I do not have a copy of my comments readily available at this time but expect that they should remain part of the Forest Service record on this EIS since that study was contracted as part of this process. If a copy is not available, please advise and I will locate my copy in storage.

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With respect to the Irreversible and Irrecoverable Commitment of Resources I find fault with the DEIS conclusion. For the purposes of a resource that is the acoustic environment or soundscape, it is an exponential situation that exists at each moment. The people who experience this resource have limited time alive and in the location. The pollution of the soundscape by helicopter noise results in an irreversible and irretrievable commitment of those soundscape resources because they are time dependent.

KH
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The authors of the DEIS understand this to some extent in stating that the "utilization opportunities foregone are irretrievable." This is true of the lives of the people who are subjected to the noise of helicopter flightseeing tours hour after hour, day after day, month after month, year after year. Children grow up not knowing what their home environment should sound like and did sound like prior to 1984 when helicopter tours started. A mother missing her baby's first word because a helicopter flies overhead is an irretrievable loss. An outdoor wedding in a Mendenhall Valley backyard that requires a pause in the ceremony and taking of vows because of a two minute long period of noise pollution as a flight of helicopters goes overhead is an irreversible and irretrievable event. The list could go on. This is a discussion of impacts on people's lives, their everyday lives, balanced against the financial interests of a few companies and the desire of some people to have a flying adventure, without consideration or regard for the impacts of that experience on others.

KH
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My comments could go on but I am hopeful what I have missed will be included in others' comments. The days spent responding to this inadequate and biased document have been an irreversible and irretrievable commitment on my part. I hope that the agency makes a sincere and fruitful effort to remedy the multitude of problems with this document and issues a revised DEIS for full public review. Earlier I had asked for supplementals but as I think of the garbage that would be supplemented, I think that it would better serve the public and the NEPA process to simply start over and do the document correctly, consulting with the Forest Service manual and handbook (1900s) for guidelines and assistance.

Regards,

Karla Hart

-21-

REC'D SEP 25 2001

KN

COMMENT FUKM

Helicopter Landing Tours on the Juneau Icefield 2002-2006

Draft Environmental Impact Statement

September 8, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Forter Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwent.com.

Contact Information

Name Kevin L. Nash
Address P.O. Box 20943
City, State, Zip Juneau, AK 99802
e-mail address prof.nash@us@yahoo.com

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☒ Yes ☐ No

Comments Category

My comments relate to (check any that apply):

- ☒ The EIS Process
- ☐ The Alternatives
 - ☐ Alternative A
 - ☐ Alternative B
 - ☐ Alternative C
 - ☐ Alternative D
 - ☐ Alternative E
 - ☐ Alternative F
 - ☒ Alternative G
- ☐ Significant Issues
 - ☐ Noise Impacts to Residents
 - ☒ Noise Impacts to Recreationists
 - ☐ Impacts to Wildlife
 - ☐ Impacts in New Areas
 - ☒ Economic Uses

My Comments

KN 1 The EIS Process/Noise Impacts: How noise effects, & whether noise effects local residents is a municipal, not a federal, issue. While it is an impact on the environment, it's irrelevant to the Tongass.

KN 2 Landings: Landings & flight days should be effectively unlimited; most visitors are the very U.S. citizens for whom & for whom posterity these lands are held in trust. They should be allowed to see and visit these

Over...

My Comments

areas in any way they like, unless such a method be proven damaging in a way which harms the future of the trust. Specifically, Arctic Glacier Lake Landings should be added to the F&G alternatives.

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RECEIVED
JUNE 11 2007

Kristin Bonanoff
1014 Bonnie Drive SE
Juneau, AK 99801
andkristin@jci.net

KR

Sept 30, 2001

Comments re: Helicopter Landing Tours on the Juneau Icefield

to District Ranger, Pete Griffin,

I am not comfortable with any alternative but am supportive of a combination of ideas contained within Alternative B

Alternative C. Also known as the

"Citizen's Alternative". I'd like to see the number of arrival landings returned to the 1994 levels (11,881) with a max. number of landings per day of 93. (Alt. B.)

Flights six days a week seems reasonable. (Alt. C.) would also like flight paths

for "good" & "bad" weather routes for local company. If these routes are not viable at min. altitudes, flights would be cancelled until routes are safe.

I also not want additional heliports

with existing sites OK, better to be near airport. Bonnie Bruce & accept some level of helicopter noise, but my time outdoors

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we, the only family in the area, are very impacted by the current situation of the state of Alaska. Just one of the things that place at risk is the noise level of our operations. The noise level is unacceptable & is a serious pollution. Juneau has had a negative impact on the quality of life for our community. Regulation & limits needed to have been set long ago at these levels.

Thank you for your careful consideration of these comments.

Sincerely,

Archie Remond

RECEIVED
JUN 11 2001

KSe

September 4, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, # 200
Bothell, WA
98011

Regarding helicopter tours in Juneau, Alaska and the pending Environmental Impact Statement on this issue:

Dear Ms. Hall,

I'm certain you have received many letters of opinion regarding this issue, some pro and some against Helicopter Tourism. Aside from the issues of economic benefit versus noise negativity, I would like to point out the very real human benefits for the tourist's.

I am proud to be a helicopter pilot flying for Coastal Helicopters in the Juneau area. This summer I have had the pleasure of flying several hundred tourists to many of the glaciers that are part of the Juneau Ice Field. These visitors have come from many countries around the world and most of the Lower 48 States. I am pleased to report that without exception, the ice field experience has been a major highlight, if not THE highlight of their Alaskan experience.

I have had several people with tears running down their cheeks, marveling at the beauty. I have witnessed people transformed from quiet adults into almost children in their excitement and enthusiasm. This past week I flew an elderly lady of 84 years and her two daughters in my helicopter. All were from Georgia. The Mother had purchased the trip for her family as part of a life long dream to see Alaska and stand on a Glacier. As we gingerly helped her from the helicopter, this woman was truly awestruck. She could barely contain herself in her enthusiasm. I went home that evening feeling that I really had helped make a dream possible. There is absolutely no other way that this woman, and for that matter most of the tourists I have flown this summer, could have had this experience without Helicopter Tourism.

KSe
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I can appreciate the concerns of some local residents regarding noise and overflying of their homes. I can tell you with confidence that all of the Helicopter Tour companies emphasize noise abatement procedures. Whenever possible, we fly as high and as far away from residences on our trips to the Icefield. There are days where weather and safety concerns limit our ability to accomplish this, but none of us want to be intrusive.

I would hope that the local residents remember the beauty that many of us take for granted here in Alaska is also something to be shared with our fellow citizens. There is no other way I can imagine that would allow these people the opportunity to share this beauty.

Please consider this, and continue to allow modest growth in Helicopter Tourism.

Thank you for your consideration,



Ken Seright
Helicopter Pilot
Coastal Helicopter
Juneau, Alaska

KSt
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KSt
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KSt
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KSt
RECEIVED
10-7-01

"Jim Reichelt"

<reichelt@alaska.com>

>

To: <ehall@twinc.com>

cc:

Subject: helicopter comments

10/01/01 11:47 PM



I am writing to comment on the DEIS for helicopter landings on the Juneau Icefield. Like most Juneau residents, I have been continually impacted by flight-noise in our city. I feel that the impacts are much more significant than the DEIS portrays. We have reached our critical threshold.

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For this reason, I am strongly against any landings on the Juneau Icefield. We must reduce the noise in our community, and while the DEIS does not predict the drop in flight tours if landings are eliminated, I feel the result will be less flights.

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In addition, I am against creation of any new landing areas. Spreading the noise does not reduce it. The more places where landings are allowed, the greater the impact on wildlife, recreationalists, and residents.

KSt
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The Forest service has a responsibility to protect the common good. Allowing helicopter landings on the Juneau Icefield is not in the interest of the common good.

KSt
4

Sincerely,

Kathy Steplen
Juneau, AK



Kevin_W_Tillotson@Ke
yBank.com
09/29/01 01:46 PM
To: ehell@werc.com
cc:
Subject: Juneau Icefield 2002-2008

RECEIVED
12-7-01

Ellen Hall - Foster Wheeler Environmental Corporation;
My contact information:
Kevin W. Tillotson
2551 Vista Drive #8-301
Juneau, Alaska 99801
Kevin_W_Tillotson@keybank.com

I would like to be added to the Helicopter Landing Tours EIS mailing List.
Please add my name.

It is my understanding that you would like comments not only on my preferred alternative, but anything we like or dislike regarding the other alternatives. For the record, my first preference would be Alternative F, which as I understand would allow for a 5% annual increase in icefield landings from the 1999 level and no reduction in days or time of operations. My second preference would be Alternative G.

Alternative A (B & C are also included):
I fear that there is a vocal minority of Juneau residents whose ultimate goal would be Alternative A. Alternative A, along with B and C, would create a devastating financial impact on the tour operators, as well as the financial institutions that finance them. I trust that these alternatives are not being given serious consideration, particularly in light of all the efforts that the operators have taken to address issues like noise impact on the community. I know that many of the operators (both fixed wing and helicopter) have been looking into quiet technology aircraft, however, that requires a significant investment on their part. How can industry justify such significant expenditures when their financial future is so uncertain? I wonder how many of the supporters of Alternative A, B or C, would support similar initiatives regarding their livelihood - I think the number would be zero.

I have been to many of the Forest Service meetings as well as municipal meetings dealing with the sound issue. I find that it is the same handful of residents that complain about this industry and it is apparent to me that they will not be satisfied until the industry is on its back. This is how I believe they have dealt with the timber and mining industries in this town, as well as just about any plan for economic development. There are those who blame the industry for low home prices. I still have yet to see a study that indicates home values are negatively impacted by job creation and economic stimulus. I suspect if home prices are down, it has more to do with the generally weak local and regional economy than it has to do with flight seeing.

Alternatives D & E:
I do not agree that a portion of the National Forest should be off limits to those Americans visiting Juneau on specific days. I do not agree with those who say Juneau residents have more right to the icefield than those Americans that live elsewhere. I wonder if Fairbanks should be able to

KT 4
tell me when I can or can't go to Denali?

Alternative F:

As indicated before, this is my preferred alternative. It allows for manageable growth in the industry and provides sufficient stability for operators to allow them to pursue improvements to their equipment. There are those who will be angered by this position, but I believe those are the same people that will not be satisfied until the industry is run out of town. I know that the operators have put a significant amount of work into reducing their impact on our community, however, when you listen to the most ardent opponents of the industry, they can not admit to any of these improvements. This is because they are not interested in coming up with a meaningful compromise.

Alternative G:

I would support this alternative, however, I do not suspect the industry could support this level of growth.

Thank you for this opportunity to provide my opinion.

Kevin W. Tillotson

Larry Hurllock
Box 34619
Juneau, AK 99803
907-790-5586

Mr. Pete Griffin
Juneau Ranger District
8465 Old Dairy Road
Juneau, AK 99801

SEP 26 2001

Juneau Ranger District

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RECEIVED

Dear Mr. Griffin

While the icefield belongs to everyone in America and should theoretically be available to all, access to it does go through the Borough and City of Juneau.

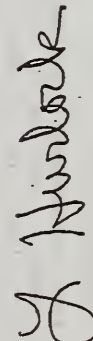
So any costs not paid for by people flying to the icefield, such as diminished value of enjoying one's home due to overflights, is properly a concern of those Juneau residents. It is time to respect those concerns. To respect those people.

The number of flights should not increase. Not until the flight owners come forth and fully reimburse anyone who can show increased impact.

The role of government is not so much to promote the welfare of one person over another, as you are doing, but to see that costs are borne fairly.

Your agency must live up to this responsibility:

Larry Hurllock




Lynn Canal Conservation, Inc.

Post Office Box 964
Haines, Alaska 99827

LCCI

REC'D SEP 25 2001

September 21, 2001

Lynn Canal Conservation appreciates the opportunity to comment on the DEIS for Helicopter Landing Tours on the Juneau Icefield. Although we have many concerns regarding Forest Service management of the heli-tourism industry, we will focus on six main issues.

I. PUBLIC DEMAND

The driving rationalization for ever escalating helicopter landings on the Juneau Icefield and elsewhere in the Tongass has been termed "public demand." The time has come for the Forest Service to acknowledge that citizens are not demanding icefield access; rather, the helicopter industry is pressuring the Forest Service for more landings for the sole purpose of increasing profits. Since 1984, every landing site has been identified by the industry. The industry then successfully markets tours to cruise passengers. Therefore the industry is creating the demand, not the public. If the Forest Service stopped issuing permits there would be no public outcry--only an industry outcry. The public would simply purchase other existing tours and be perfectly content never setting foot or mushing on a glacier. In essence, landing permits first and foremost facilitate commercial enterprise.

Please change "public demand" to "industry demand" in the FEIS.

II. IMPACTS TO WILDLIFE

We appreciate official Juneau Ranger District recognition of the need to maintain a one-mile buffer between goats and helicopters in areas formerly unexposed to helicopter activity. Because of this recognition, we are dismayed that the Forest Service is even considering alternatives that do not allow for a one-mile buffer. We request these alternatives be eliminated from consideration. Further, we strongly disagree with the conclusion that goats in areas of overflight have habituated to helicopters.

NEPA and Forest Service policy require resource management based on the best available science. We found the DEIS analysis of wildlife impacts to be inadequate. Conclusions were drawn with a lack of information and a lack of scientific rigor.

a) Given huge numbers of daily flights and widespread flightpaths, there appears to be little suitable goat habitat south of the 1995 boundary where goats could avoid helicopters. The fact that goats still occupy habitat in areas of overflight doesn't prove

anything except maybe that there's no place else for them to go.

b) The data on Juneau Icefield goat populations is so spotty, no scientific conclusions can be drawn. According to the 1995 DEIS for helicopter landings on the Juneau Icefield, "There is sparse information available indicating distribution and abundance of mountain goats prior to the beginning of icefield tours. No information exists documenting abundance and distribution of other wildlife species prior to icefield tours. Possible effects could range from none to displacement into different habitat."

When LCC requested a copy of pre-1999 goat surveys cited in the DEIS, we were told the Forest Service did not possess these surveys and we were referred to the Alaska Department of Fish and Game. With no maps of past transects on hand and consequently no ability to reference where goats were spotted in past years, there is no way for the Forest Service to know whether 1999 and 2000 transects are even compatible. In this context, conclusions of increasing or stable goat populations are ludicrous.

When drawing the conclusion that goat populations seem to be stable or increasing, there is no mention that goats are rebounding from an ORF epidemic and no mention that they have not been subject to hunting pressure since 1984. These seem more plausible explanations for goat population increases than helicopter "habituation."

c) The DEIS does not consider that sustainable goat populations depend upon the ability to reproduce and that 20 to 25 kids per 100 adults is a healthy adult to kid ratio. Even with the sparse data, there is one alarming indicator: In 1999 the adult to kid ratio is the lowest of any year on record. In one of two sample populations, the 1999 ratio is 60 to 75% lower than any previous year. This needs careful consideration.

d) If we accept the premise that observed subsets of Juneau Icefield goats showed none of the outward signs of stress noted in Cote's study, we still cannot conclude that goats are no longer disturbed by helicopters. Until scat samples are tested for stress hormones, no conclusions can be drawn. In fact, the most interesting and only honest representation of what may be occurring on the Juneau Icefield comes from the Obermeyer/Peacock study of 1999, referenced in DEIS literature, but not mentioned in the text: "In the Juneau area, goats have been subject to helicopter traffic for many years and may not show the same overt responses as naive goats. This does not mean that there is no effect. It may just be more subtle. In addition, there may still be substantial behavioral, nutritional, reproductive and population effects on goats." The FEIS must address this conflicting viewpoint.

e) According to the DEIS signs of habituation would include decreased physiological stress. Since the Forest Service has not measured physiological stress, it has no business concluding goats have habituated. Please correct this faulty assumption of habituation in the FEIS.

f) It is inappropriate to publish the results of an in-house study before subjecting it to

the rigors of peer review. We believe the conclusions drawn from two years of Forest Service goat observations would not withstand peer review.

LCC 4 g) The Fox study referenced recommends avoiding kidding habitat in May, June and July, not just through June 15, as stated in the DEIS. Please correct this error in the FEIS.

In summation, the Environmental Consequences to Wildlife section is misleading and woefully inadequate. We would expect the FEIS to address wildlife issues with more honesty and integrity.

III. MONITORING FOR COMPLIANCE

LCC 5 There is substantial evidence that helicopter pilots do not comply with permit stipulations. The Forest Service must begin to require each helicopter be equipped with a recording GPS system so that it can monitor flight paths, separation distance, compliance with kidding areas and compliance with allowed number of landings.

LCC 6 For example, the Forest Service staff biologist observed helicopters flying less than 1500 feet away from goats 18 times out of a total of 28 observations. The closest observed encounter was 600 feet (page 1 of 1999 data). These are flagrant violations of the 1500 foot avoidance mitigation measure.

LCC 7 In addition to requiring a recording GPS system for each helicopter, it must be made clear to operators that permits would be revoked for non compliance. Since the Forest Service is required to monitor for compliance but does not have the financial resources to do so, it seems the obvious solution is to require GPS.

IV. CUMULATIVE IMPACTS

LCC 8 We believe it is necessary to analyze all commercial recreational helicopter activity which occurs on the Juneau Icefield in the FEIS-- including heli-skiing. This is particularly important in relation to goats, as stress is a result of the cumulative impacts from summer, winter and spring helicopter activity. Critical analysis missing from the DEIS is that the limiting factor for goats in Southeast is the availability of suitable winter habitat. Since winter habitat is compromised by heli-skiing activities (for example, females are in the third trimester), this analysis needs to be a part of the FEIS.

V. OTHER FOREST USER GROUPS

LCC 9 The Forest Service has ample evidence that helicopter overflight disturbs hikers. An examination of DEIS maps shows all hiking trails are overflown by approved flightpaths. In order to provide quality recreation opportunities for hiking and other non-motorized use of the forest, the Forest Service needs to provide alternatives

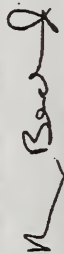
which segregate helicopters from other users. This would entail creating helicopter-free zones. Considering a wide range of alternatives as mandated in NEPA does not only mean alternatives with different numbers of landings, and alternatives with new areas of helicopter use, but also areas of no helicopter use.

VI. IRREVERSIBLE COMMITMENT OF RESOURCES

Irreversible commitment of resources is defined as "the loss of future options... applying primarily to non-renewable resources". Oil is a non-renewable resource. The United States has gone to war over oil and is considering drilling in the Arctic Refuge and various national monuments.

Helicopters on the Juneau Icefield burn 50 gallons of fuel per hour (Chugach EA, USFS). 35 helicopters running 11 hours per day for a 124 day season would use 2,387,000 gallons of fuel per summer. This is substantial fuel burned for a frivolous activity that has huge quality of life impacts to Juneau residents. It's past time to rethink widespread, massive amounts of helicopter activity on the Juneau Icefield.

Thank you in advance for your serious consideration of these issues.


Nancy Barland
Executive Committee

LD



To: <shall@twenc.com>
cc:
Subject: Juneau Icefield Tours

"The Depute's"
<ldepute@gcl.net>
09/02/01 04:50 PM
MST



I just attempted to absorb as much of the US Forest Service DEIS as I could this afternoon as I listened to helicopters repeated fly by my house. They have certainly identified the multiple reasons for annoyance. I am not particularly against helicopter tours on the glacier. What I do not care for is the intrusion into my life and my lifestyle. I moved to this community 23 years ago and committed myself to a career path that has kept me here. I liked Juneau a lot more before it got "discovered", but it is still a nice place to live in. We have had to adapt. We rarely go downtown anymore, it is sort of like Las Vegas or Reno, just another place to separate tourists from their money. But we can deal with that. What we feel totally helpless about is the noise pollution. It stops conversation, disrupts reading, we can't sit on our porch anymore, it is so pervasive. When I read the DEIS, I felt totally defeated. There is apparently no way out of this other than leaving the community. We live here year around so that we can enjoy our summers. We used to enjoy it with 30,000 people, now we do not enjoy it with 530,000 people. I think that Alternative "B" is the least of the evils, but my concern is that those landings will just be replaced with nonlanding flights and nothing will have been accomplished. I appreciate this chance to comment.

Larry DePute.

LD 1

LD 2

LD 3

LCC1
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(cont.)

LCC1
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September 10, 2001

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 Northeast 195th Street, Suite 200
Bothell, Washington 98011

Dear Ms. Hall:

My wife and I recently spent several hours on the Mendenhall Glacier as part of a helicopter and ice climbing tour conducted by NorthStar Trekking in Juneau, Alaska. I understand that the Forest Service is currently seeking public comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield for the years 2002-2006. This letter is to respond to the invitation to provide input.

My wife and I very strongly endorse the Forest Service continuing to allow NorthStar and similar companies to continue their tours. Apart from NorthStar showing obvious environmental concern generally, their tours allow those of us who are urban-dwelling, environmentally-sympathetic people to experience firsthand the wonders of the massive glaciers and, more importantly, to have an "inside look" that not only adds to our understanding of the glacial phenomenon and its importance in the larger environmental picture. Most of us are inundated with articles, television programs, films, public service advertisements and the like about environmental awareness, but there is simply nothing that comes close to the tactile experience of walking across a glacier in crampons and learning about such incredibly complex and environmentally important entities. My wife and I came away from our several hours with NorthStar invigorated by the experience and even further committed to the cause of environmental awareness and conservation.

I realize that there may be occasional minor negative environmental impact caused by the simple fact that helicopters land on the glaciers and people walk on them. On the other hand, I believe strongly that the benefits derived from the experience far offset the potential minor liabilities, and for that reason encourage the Forest Service to allow such tours to continue. In addition, I am told (although I do not have data to prove it) that, by and large, visitors to Alaska are more environmentally aware and arguably in a better position to impact public opinion about the environment than the majority of the population. If this is indeed the case, then there is all the more reason to encourage those of us with such awareness and leanings to learn more and, in turn, to return to the "Lower 48" to spread the word.

I trust that these comments will be helpful and look forward to future trips to Alaska and trekking on the beautiful glaciers.

Cordially,

L. Lincoln Eldredge

LLE/lmg

cc: NorthStar Trekking
Post Office Box 32540
Juneau, Alaska 99803

L. Lincoln Eldredge
6805 Golf Drive
Dallas, TX 75204
Phone: 214-871-8700
Email: eldredge@brighamhill.com
Web site: www.brighamhill.com

RECEIVED
SEP 11 2001

LE

LE1

LeH

Lee Hurley

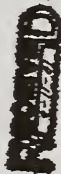
<lhurley@utlasaska.net

To: ehal@fwenc.com

cc:

Subject: Re: hollandings

09/10/01 12:26 PM



Ms. Ellen Hall,

Please accept this message as a request to reduce Helilandings and flights over the Juneau Ice Field that originate from or fly over the populated areas of Juneau.

As a resident of fifty two years I have watched tourism grow at an alarming rate that has consumed this community and split it politically. Tour traffic on our road system is reaching problematic levels. The continuous pounding of the air traffic is mind numbing at the current level and property values will deteriorate from it.

As a commercial fisherman I have been denied access to Glacier Bay National Monument waters so tourism can flourish unchecked.

Solution:

1. Adopt Alternative "B" and reduce traffic to the 1994 level in the Juneau area (over a three year period perhaps?).
 2. Move this reduction in Juneau traffic to the Glacier Bay area and allow for future expansion in that area.
- This is a win/win solution....the residents of Juneau can regain some sort of peace and quiet....and the tour industry can grow (just in their "own back yard").

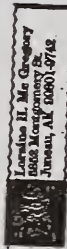
Thank you for your consideration in this matter.

Lee Hurley

LeH
1LeH
2LeH
3LeH
4

U.S. Forest Service
Juneau, Alaska

8 Sept. 2001 LHM



For many years I have lived in the Lemon Creek area.

Last summer and this past summer the quality of my life has deteriorated. Helicopters go on the ridge from or to Western Auto area to Lemon Glacier. Three at a time! They usually return over Hentzelman ridge, three at a time.

I get so tired of the noise that I am glad when it is foggy or bad weather when they can't fly. Why does someone have to land on a glacier? Can't they see or take pictures of a glacier? I think this tourism problem is getting out of hand.

It used to be much nicer here. Someone should have the guts to put a limit on things affecting those of us living here. My opinion - Tired of noise.

Loraine H. McGregory

LHM
1LHM
2

30 September 2001

Dear Miss Hall,

We strongly urge you to decrease the number of landings allowed on the Juneau Icefield by selecting Alternative B. Our main issue with this use of the National Forest is the noise of the helicopters over residential areas, trails, and backcountry areas. We will focus mostly on residential areas here.

Lynn has lived here in Juneau for 17 years and Peter for 10 years. We have both chosen to live here rather than in other areas. We think that the current levels are much too high. For the first 12 years in Juneau, Lynn lived in West Juneau. She experienced the rapid increase in cruise ship traffic, noise from their loud speakers, and noise from the floatplanes. Then she moved to Peter's house in Mountside estates, essentially across from the ERA heliport. Much of the noise we heard there was the helicopters idling on the ground loading and unloading passengers. The noise was almost constant during days those helicopters were used. We eventually did not like to spend time outside nor did we want to open the windows in our house while they were operating. In an effort to get away from the noise, we built a house at Auke Bay. Last year Temco and other operators changed flight routes so that the helicopters now frequently travel all the way across Auke Bay, turn at the ferry terminal and then go up the Valley. Because they turn so close to our house, we hear them coming, turning, and then going. The duration of the noise is much longer than if a helicopter were just to pass over. We take our son to the Auke Bay school playground quite often, and the sound is enough to disrupt conversation and to hinder safety warnings to our son as he plays. Because the helicopters basically encircle that area the sound is seemingly incessant. The ferry terminal is just less than a mile from our house, but we can clearly hear the helicopters as they approach, turn, and head away. The noise, quite often, lasts 10 minutes or more. As soon as one helicopter is finished, another one in the same group comes. When that group has finally passed, a new group usually approaches with 5-10 minutes, and we have to listen to another 10 minutes or so of noise. We moved out to Auke Bay, in part, to get away from the constant noise, but that seems to have been a mistake. We pay a price for living out the road by having to commute to our jobs in downtown and Douglas. We came here for the rural atmosphere and the quiet - not to listen to helicopter after helicopter after helicopter.

We know that the helicopter companies have tried to develop flight routes that impact fewer people. It seems to us that most people move to this more rural location to avoid the noise and bustle of the more populated areas. Although moving the flight routes to areas where there are fewer people, simply transfers the problem to people that are likely to be more sensitive to noise and have live here specifically to get away from the noise. We do not advocate changing the route so that we are not affected, but other people are impacted. Unfortunately, EVERY route impacts people. If you were to design flight routes specifically to annoy the most people, they would not look much different than the current routes that supposedly affect fewer people. We think that the only viable solution is to decrease the total number of flights and thus the overall noise level.

We find the alternate heliport study is interesting and has potential to cut down on noise to a lot of areas. We urge you decrease the number of authorized landings until a decision on the alternate heliports is made. At that point, you could reevaluate your decision.

As far as noise to recreationists, we want some areas of the Juneau Icefield free of helicopter landing tours. I want to be able to ski somewhere on the Icefield without helicopters landing tours around.

We also want to hike on trails without constant helicopter noise. We, basically, have given up hiking on Heintzleman Ridge because the helicopters are so close to the trail and they come over the ridge without warning and are frankly quite frightening.

Some specific points:

1. At our house near Indian Point, the duration and frequency of helicopter flights are some of the greatest in Juneau. Peter monitored the frequency of helicopter flights on a typical summer day. Between about 9:00am and 5:00pm there was an average of more than 10 helicopters per hour. Peter was inside working in his wood shop or working in the house with the windows open. Every time he heard a helicopter we noted the time and number of helicopters. Due to his working on projects inside, it is probable that he missed some helicopters on this day. For comparison, the average number for the West Juneau site in the noise study was 9 flights (both helicopters and floatplanes) per hour (Figure 4-9). On the day we kept track, we had up to 9 helicopters at a time! We know this was a typical day because Peter spent many days working at home since he had the summer off. Unfortunately we do not have any more data than this. However, the noise study found that flight noise during sightseeing flights in this area was comparable to other highly impacted areas in Juneau. When we moved here in 1998, there were few helicopter flights, and now we conclude that this is one of the noisiest areas in Juneau. It seems that the new flight paths have just moved the problem to a new location.
2. Table 2-1 states wrongly that Alternative A is not consistent with the Forest Plan. The forest plan is permissive in nature in that it does not REQUIRE any activity to be permitted. Instead, it allows the Forest Service to authorize activities. For example, in a Timber Production Land Use Designation (LUD), although timber harvest is allowed, it is not required. In the same sense, permitting of helicopter landing tours is allowed, but not required. If landing tours were not allowed as in alternative A, then no activity would occur on the National Forest and it would be consistent with the forest plan.
3. Table 2-1 also states that Alternative G is consistent with the forest plan. We disagree that allowing motorized snow vehicle tours in a Remote Recreation LUD is consistent with the forest plan. The guidelines for this LUD direct the Forest Service to manage for primitive recreation settings and to strive to minimize changes from the Primitive Recreation Opportunity Spectrum (ROS) objective. The guidelines for access in the Primitive ROS class state that use of airplanes, helicopters, motorboats

- LHPT 8 (cont.)
- LHPT 9
- LHPT 10
- LHPT 11
- and snowmachines may occur but is rare. Allowing motorized snow vehicle tours would not be a rare event and the Forest Service would not be striving to minimize changes from the Primitive ROS objectives.
4. We think it is questionable whether authorizing landing sites within the Remote Recreation LUD is consistent with the Forest Plan. As we stated above, the guidelines for this LUD direct the Forest Service to manage for primitive recreation settings and to strive to minimize changes from the Primitive ROS objectives. The guidelines for access in the Primitive ROS class state that use of airplanes, helicopters, motorboats and snowmachines may occur but is rare. Allowing helicopter landing tours would not be a rare event and the Forest Service would not be striving to minimize changes from the Primitive ROS objectives.
5. The Juneau Icefield Research Program (JIRP) buffers are huge. Can you put one of these buffers around our house? We do not believe that the researchers should get special treatment.
6. We do not believe you should even be considering increasing or expanding the helicopter landings when the McDowell survey of 1998 results (stated on p. 4-4 of this EIS) showed that 81% of those surveyed said that helicopter flightseeing should be maintained at the current level or be reduced.

Sincerely,

Lynn Humphrey
Peter van Tamelen
14320 Otter Way
Juneau, Alaska 99801
(907)790-6678

LKan



LKanowith@aol.com
08/12/01 05:15 PM

To: ehall@twenc.com

cc:

Subject: Helicopter Landing on Juneau Icefield

Dear Ms. Hall,

I have recently returned from my vacation in Alaska. One of the trips my wife and I took was a helicopter ride and landing on an iceberg. I do not believe that there was any damage done to the iceberg by this or any other helicopter landing. I think it does belong to all and would like to see the helicopters continue to bring people to and land on the glaciers.

Thank you.

Lynn Kanowith

Lorene Kappler
<lkappler@alaska.com>

To: "ehall@iwenc.com" <ehall@iwenc.com>
cc:
Subject: Helicopter Landings DEIS comment

10/01/01 03:42 PM
Please respond to
"lkappler@alaska.com"



LKap

RECEIVED
10-1-01

1 I prefer alternative P, followed by D as a compromise to no growth for the industry. I think the industry is doing a good job of minimizing impacts within their ability and equipment technology. I live in the Lemon Creek area and do not find the level of noise detrimental to my quality of life (my neighbors barking dogs are much more of an annoyance!!). The tourism industry is a vital element in Juneau's overall economy. The helicopter tours are spectacular and something our community can be proud to offer. I do think it's important for the industry to be sensitive to concerns raised by residents and keep quality of life issues in the forefront when determining how much to grow and what types of tours to offer. I do not want to see the companies and their employees put out of business, so some ability to grow and offer different types of tours seems reasonable. With the current economic environment and the threats to travel safety, I think that the helicopter companies will have a difficult time getting close to the 19,039 level any time soon. Thank you for the opportunity to comment.

Lorene Kappler

LKap
2

Laura Lucas
<lucasdesign@pci.net>

To: ehall@iwenc.com, pgiffin@is.fed.us
cc:
Subject: heli landing tour comments

09/23/01 12:01 AM
Please respond to
lucasdesign



RECEIVED
9-23-01

LL

1 As a resident of Juneau, (specifically North Douglas) I am writing to say of all the proposed alternatives of the Helicopter Landing Tours in Juneau, I am most aligned with Alternative B.

LL
2

Why?
The noise in my own backyard reminds me of news reports on the Vietnam war. I wake up to this invasion of sound, I garden to the whine of rotors and I wash dishes to this noise.

LL
3

When I seek to escape it, it follows me. Most of my favorite high country hiking/camping appears to be on or in the vicinity of a flight path. Blackberry Ridge, the West Glacier trail, Mount Jumbo, Salmon Creek. When I camped at the base of Mount Hawthorne this summer, a place I go to observe goats, the barrage of heli travel was incessant. Even at the Eagle Glacier cabin, a location I was given to understand was a voluntary compliance no fly zone, was subject to a number of helicopter flyovers, presumably because the weather was below limits in other locations.

LL
4

I also feel the impact goes beyond the subjective "quality of life" issues and effects the economy as well. Property values, as well as businesses (B&Bs etc) catering to the independent traveler are impacted by the negative effects of helicopter noise.

LL
5

Additionally, although I am uncertain as to whether impact has been documented, my experience Up Sheep Creek Valley/Powerline Ridge leads me to believe that current flight paths do not respect a 1,500 ft limit. I understand there has been some attempt to study impact on goat population and would be curious to be informed of any reports generated by this study.

LL-6
LL-7

For this reason, I support a rollback to 1994 actual use as proposed by alternative B. I also think the "Citizen's Alternative" promoted by Kerla Hart is a good proposal.

LL
8

Management of flights during poor weather is also a concern. We have witnessed the tragic results the profit motive encouraged. If routes designated as "poor weather" are not flyable at minimum altitudes required, flights should be cancelled for that period of time until routes are safely flyable at minimum specified altitudes.

Thank you for your consideration of these points.

Laura Lucas
6615 North Douglas Hwy
Juneau AK 99801
907-586-3536
lucasdesign@pci.net

LSh RECEIVED

AUG 29 2001

Juneau Ranger
- District

August 28, 2001

Pete Griffin
District Ranger
U.S. Forest Service
Juneau Ranger District
8456 Old Dairy Road
Juneau, AK 99801

RE: Helicopter Ice Field Landings

Dear Mr. Griffin:

My husband and I own and reside in a home on Moraine Way, where we have lived since 1993. We chose this neighborhood in part because it was peaceful and quiet. Since that time, the level of helicopter noise has noticeably increased and is annoying on weekends and when we are at home trying to rest. It is my understanding that the Forest Service will be approving special use permits for the commercial helicopter companies that land on the Juneau Icefield through 2006 and that the level proposed is 19,039, although the actual number of landings has never exceeded 17,000, and that the proposal will allow flights from 8am to 8pm 7 days a week. These levels are excessive and the time restriction is insensitive of the fact that many people, my husband included, work non-standard hours that require them to sleep within the 8 am to 8pm time period. My husband is running a small business that often requires him to work until midnight to 2 am and sleeps well past 8am. I can think of other times when people would need a quiet home during the day, such as recovering from illness and taking naps for small children, that are indicative of people's need to have a quiet home environment available to them 24 hours a day. The more times, days and numbers of helicopters making the landings, the less and less that quiet home environment exists.

Consequently, I am opposed to any increase of helicopter landings on the Juneau Icefield or expansions of time/day operations. These levels are excessive now and should be reduced.

Thank you for the opportunity to comment.

Judith Shaw

Linda Shaw
9684 Moraine Way
Juneau, AK 99801

RECEIVED
R-124-01

LST

Due 9/24/01

COMMENT FORM

Helicopter Landing Tours on the Juneau Icefield 2002-2006

Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name LARRY STEINER
Address 515 N. FRANKLIN ST
City, State, Zip JUNEAU AK 99801-1123
e-mail address STEINER@JUNEAU.HOTMAIL.COM

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☐
Alternative G ☐
Significant Issues ☐
Noise Impacts to Residents ☐
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☐
Impacts in New Areas ☐
Economic Uses ☒

My Comments

GIVEN THE NEAR CERTAINTY THAT CRUISE SHIP PASSENGERS WILL INCREASE SIGNIFICANTLY, HELICOPTER FLIGHTS SHOULD BE ALLOWED TO INCREASE PRO RATA. BEST ALTERNATIVE IS TO LIMIT PATH CRUISE SHIPS AND HELICOPTERS.

Over



"Laurie
Thorpe/R10/USDAFS"
<lthorpe@fs.fed.us>
10/01/01 11:44 AM

To: ehall@fwenc.com
cc: "Peter M Griffin/R10/USDAFS" <pgriffin@fs.fed.us>
Subject: Fw: helicopter landings, Juneau Icefield

RECEIVED
R10-01-01

Laurie Thorpe
Juneau Ranger District
8465 Old Dairy Road
Juneau, AK 99801
(907) 790-7439
lthorpe@fs.fed.us

----- Forwarded by Laurie Thorpe/R10/USDAFS on 10/01/01 09:43 AM -----

*Richard T.
and Lynn
Wallen*
To: <lthorpe@fs.fed.us>
CC: <wallen@optical
aska.net>
Subject: Fw: helicopter landings,
Juneau Icefield
10/01/01
09:42 AM

----- Original Message -----
From: Richard T. and Lynn Wallen
To: ehall@fwenc.com
Sent: Monday, October 01, 2001 9:41 AM
Subject: helicopter landings, Juneau Icefield

Regarding the DEIS on helicopter landings.

I favor a reduction of the number of permits for icefield landings.
Alternative B is the choice closest to my preference. I live in West
Juneau. My husband and I have suffered the noise of ever-increasing
aircraft tour flights for years and the noise directly affects our lives.
We have given up using our yard for cook-outs. We keep the windows of our
house closed, and even so, often have to interrupt a telephone conversation
until a convoy of helicopters passes by, or series of float planes have
completed their take-offs. The volume of a radio or TV must constantly be
readjusted to be audible above the noise of aircraft. We have had enough.

Sincerely,
Lynn Wallen

LW 1
LW 2

MB

September 28, 2001

Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041 pgriffin@fs.fed.us

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011 ehall@fwenc.com

RE: Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

Dear Sir and Madam:

Since the last EIS, much has changed. Icefield landings in 2000 increased 38 percent from 1995. Organized opposition to the level of flightseeing activity has formed (e.g., Cruise Control, Peace & Quiet Coalition), the Forest Service has initiated and aborted efforts at mediation, and a reactionary initiative made it onto the City & Borough of Juneau ballot.

Clearly, heli activity has reached a level that is imposing significant costs on residents and other users of Forest Service and non-Forest service lands. The costs are noise—or, if you will, diminished quiet and loss of natural soundscapes. Unfortunately, there is no market for these costs. Thus, no specific value can be placed on them. Even if one could, the fact that they are external costs of the helicopter tours means that there is no ready mechanism to compel the tour companies or their passengers to pay them or to distribute the compensation to affected parties.

The reason the noise costs are so significant is due in large part to the fact that flight paths cross much of the residential areas of the city. In this respect, Juneau is unique compared to any other local with significant flightseeing activity. Any decision about activity levels must give primacy to this fact.

This alone demands abatement. I note that the 1997 TLRMP Forest Plan forest-wide standards and guidelines for recreation and tourism do not even mention the impact on residential areas. They only mention minimizing "adverse impacts to popular or highly valued local areas". Normally, activities on Forest Service lands do not directly impact residential areas. The forest-wide standards and guides are deficient with respect to your decision on the EIS. The uniqueness of the impacts on Juneau residential areas must be reflected in your decision.

The groundswell of protest between 1995 and now argues for returning to the level of activity (or noise, if a noise budget approach is adopted) present in 1994. The public

MB 1

MB 2

MB 3

LW

protest is a rough, but the best, gauge we have that activity levels are creating costs exceeding benefits. If and when alternative heliports are established to greatly mitigate residential overflight, returning to current or greater levels of landing activity could be considered.

But, even with minimized residential impacts, the location and level of future activity must be limited. The Forest Service must preserve the value of other outdoor recreational activities and avoid disturbance of wildlife in areas in proximity to heli activity.

MB
3
(cont.)

Thus, for now, the Forest Service should adopt Alternative B. If serious mitigation of residential overflights occurs, the Forest Service should revisit the issue at that time.

MB
4

Yours truly,

Milt Barker

206 7th Street
Juneau, Alaska 99801

MFV

RECEIVED

AUG 29 2001

Juneau Ranger
District

27 August 2001

Pete Griffin
District Ranger
USFS-JRD
8456 Old Dairy Rd.
Juneau AK 99801

Dear Mr. Griffin:

I hear that the USFS is in the process of determining use permits for commercial helicopter landings on the Juneau icefield for the coming years.

I am writing to say that the possibility of a helipad in or near the Montana Creek drainage in the upper Mendenhall Valley is pretty horrifying to those of us who live there.

Already, my house has been buzzed by as many as 8 helicopters in a 30 min period, flying low and making so much noise that it was impossible to listen to music or carry on a conversation. The prospect of more such disruption is horrible to contemplate.

MFV
1

Furthermore, any increase in traffic in this area, where there are no sidewalks or bike paths, can only increase the risk of nasty accidents to residents of the area.

MFV
2

I request that any helipad be located someplace else!

Thank you.

MA Willson

MF Willson
5230 Terrace Pl.
Juneau

James McEdward
 <mcedwardjh@yahoo.com>
 09/17/01 12:35 PM

To: ehel@twenc.com
 cc:
 Subject: Draft E.I.S. on helicopters Ind. 2002-2008 Jun. Ak.

MJM

This is to address our concerns on the effects of helicopter tours on us as citizens Juneau, Alaska. Our names are James H. and Michele A. McEdward, we live at 5980 Lund St., in the Lemon Creek area of the CBJ. Our home is about .02 tenths of a mile north of Davis St., which borders the waterway called Lemon Crk.

From the bridge on Lemon Crk., going south, the distance is between .02 and .03 tenths of a mile wide, to the base of the mountain that Blackerby Ridge is on. This commercial strip or corridor runs from Gastinau channel, which we'll call west, to the backside of Costco, which we'll call east.

On any given day or for lack of words ungiven, we have four different helicopter companies using this small commercial corridor for their flights to and from icefields. The constant daily noise from these overhead flights is enough to drive animals and people that live down below this continuous helicopter traffic into being maybe to verbal or whatever. The flight noise even penetrates into our home, not just the out doors. I don't know how the helicopter comp's... acquired this small strip of airspace, in the Lemon Crk., area, but it is not a good choice for a flyover zone. Several times during this summer 2001 I have talked to all four helicopter companies about the noise they were creating down in the residential area of Lemon Crk. My calls fell on deaf ears, no one would address my concerns, other than to say this was there route for flights. One or two of the operators said they had to split there flyovers down the middle because of Mountain Side Estates on south side of this corridor. None of the operators used Blackerby Ridge until they were east of Costco. I was under the impression that they were to gain altitude out on Gastinau Channel, and fly over Blackerby Ridge from that point. If you can get a helicopter up to about 4000 feet or so, the noise level is quite diminished on the ground. The other problem is there is no one policing the helicopter companies other than themselves, that like putting a kid in a candy store all by him self, and tell him not to touch or eat anything. I feel that better policing is in order for compliance. There were several times when there were more than one helicopter co., in the air at the same time, going two different directions, this puts six going east and six going

MJM 1

MJM 2

west. many times they go directly over our home. We also get the noise from the flights over Thunder Mt., I guess you could say in summing it all up, its a real problem, serious issues, The HELICOPTER COMPANYS NEED BETTER POLICING, AND NOT BY THERE OWN SELVES.

Thank You

Michelle & James McEdward
 September 17, 2001
 P.O.Bx. 20629 a
 Juneau, Alaska
 99802

Remember the higher we are in favor of the better, satilite heli-ports, The noise should not even be in the residential zones. Flying over neighborhoods is bad for Public relations. Lets be sensible and work to make this a better community for residence and the commercial bus.,

Terrorist Attacks on U.S. - How Can you help?
 Donate cash, emergency relief information
http://dailynews.yahoo.com/fc/US/Emergency_Information/

MJM 2 (cont)

MJM 3

RECEIVED

MK
REC'D SEP 27 2001

"Margot Knuth"
 <margot.knuth@corre
 ct.state.ak.us>
 To: <ehall@wenc.com>
 cc:
 Subject: Helicopter Landings on the Juneau Icefield

09/26/01 03:33 PM
 Please respond to
 margot_knuth



Greetings, and thank you for the (extended) opportunity to comment on the proposal that will set the number of helicopter landings permitted on the Juneau Icefield.

I moved to Juneau in 1980 and an important consideration in my choosing to stay here is the terrific access we have to what I still think of as "the Great outdoors." I am an avid hiker and cross-country skier.

I have gone from looking forward to our short summer months to dreading them ... because of the helicopter traffic. I live in the Twin Lakes neighborhood. I am bothered by ERA's heliport on North Douglas. I hear all of their take offs and landings, as well as all of the time their helicopters spend idling on the ground.

I am at least as bothered by Temco's helicopters, especially when they fly from the airport down the channel to the end of Douglas. I can't imagine a route that could bother more people.

Helicopter noise became insufferable sometime toward the end of the 90's. I would guess that I've been agitated about it for the last four summers.

I am at the point where I would just as soon spend my summers somewhere else because of the helicopter noise. Life wasn't like that my first 16 years here.

I believe in compromise and I support tourism in Juneau. But I believe that the helicopter companies were doing fine in 1997. Enough is enough. Commercial enterprises have a natural inclination towards growth, as long as the profits continue. If boundaries are to be set, they must come from an external source.

I rely upon you to protect my right to enjoy the wilderness around Juneau. I should be able to hike each and every sunny day in the summer and not be assaulted by helicopter tours that replicate scenes out of Apocalypse Now.

I would like to go up Mount Jumbo on a summer's day and not count over 50 flights during my hike. I would like to hike the East Glacier trail and not count over 50 flights during my hike. I would like to go up Thunder Mountain and not count over 50 flights during my hike. I would like to sit in my driveway and do the crossword puzzle on a Sunday and not count over 50 flights taking off, landing, and idling across the channel. Who would have thought that these simple desires were so difficult to come by?

Please REDUCE the number of landings allowed on the icefields. Roll back the number to what it was in 1997. When we could talk to each other ... and hear each other ... as a community. Thirty thousand people shouldn't have to suffer for the economic gain of several hundred. Especially when those several hundred can make a reasonable profit at the 1997 levels. This isn't an "all or nothing" proposition. Instead, we have a continuum. The question is where to draw the line on that continuum.

Noise pollution is difficult for governments to respond to because it is a new issue. One thousand years ago, we started learning about competing land uses and having to decide what to leave forested and what to clear. Five hundred years ago, we realized that we could pollute our water sources and

would need to regulate ourselves to prevent or minimize this. Three hundred years ago, we knew something about exterminating entire species of animals and the need to regulate our conduct to preserve these species.

Protecting our peace and quiet has become a significant problem only in the last 20 to 50 years. That isn't much time for our courts to develop a philosophy and a body of law addressing the issues. We don't yet know what is reasonable regulation and indeed we are uncertain who should do the regulating. The fact that a challenge is new, however, is no reason to shy from it. Instead, we must recognize that we are treading into new areas and realize that our work is the greater for the lack of guidance available to us. Please give thought to your powers and your duties in this area. Please do the best you can to serve your public.

Many thanks for your time and your thoughtfulness.

Margot Knuth
 4015 Ridge Way
 Juneau, Alaska 99801
 99801
 907-780-4064

MK
 5
 (cont)

MK
 1

MK
 2

MK
 3

MK
 4

MK
 5

September 14, 2001

RECEIVED
RT-2-2

Ellen Hall
Foster Wheeler Environmental
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Dear Mrs. Hall,

The wilderness experience is becoming less and less common in modern society, but one that is romanticized by all of us. It is the wilderness experience, the feeling of being totally overwhelmed by the beauty, power, and peace of nature that draws us to our last frontier. A journey to Alaska is a pilgrimage for most that come here. It's a dream come true. I believe that there is no other event that can offer a more powerful experience in Alaska's vast wilderness than the exploration of one of its glaciers.

Glaciers are areas of phenomenal beauty that are extremely difficult to access and to physically travel across. The glacier's surface is nature's most rugged terrain. Views looking up from their terminus or looking down from an aircraft or mountain ridge incite powerful emotions of marvel and wonder, but to access the world of the glacier by foot is such an overwhelming experience as one could never forget. The glacier is a pearl in the memory of anyone that has explored it. Its wilderness is beyond the abilities of our imagination to conceptualize. The brilliance of its light illuminates the minds and hearts of every single person that sets foot on it. The colossal beauty of its surface leaves one totally spellbound, consumed in a wonderful state of awe and humility. To feel that spell is what has called us all here to the wilds of Alaska.

The glacier is a world discovered by mountaineers. A wide spectrum of skills are demanded before one can comfortably and confidently trek through the labyrinths of crevasse fields and icefalls that compose the brittle surface layer of the ice. Practiced ice climbing skills, rope rescue techniques, route-finding and orientation skills, strong physical fitness and training in wilderness first-aid are all prerequisites for glacier trekking. Reading the glacier and traversing across it can only be safely accomplished by a limited few with the training and experience to do so. This is why professional glacier trekking guides have an important place in Alaskan tourism.

Experience is not the only deterrent in keeping an interested party off the glacier, however. Getting to and from the glacier can be a dangerous, complicated ordeal. The general rule of glacier travel is to avoid their borders. Bergshrunds and moats occur when the glacier separates from its valley wall, exposing chasms hundreds of feet in depth. Large crevasses are always present along the sides due to friction creating variations in flow velocity. Moreover, the stability of the ice along the glacier's border is always questionable. These obstacles are common and often prove to be the most difficult part of any glacier travel. Getting on and off the ice can certainly be an unsettling experience, even for the trained mountaineer. Helicopters have proved invaluable in this respect as they can transport passengers to areas of the glacier that have strong margins of safety. For the inexperienced but adventurous that desire to travel to and from the glacier, helicopter transportation should be the only option considered.

But helicopters serve only as the means to an end. Once the helicopters fly away, one becomes totally engaged by an enchanted realm of glowing ice, towering seracs, gorgeous crevasses, moulins, moraines, pools and waterfalls that surround its travelers like a mother lode would surround its miner. The glacier is a precious stone that cannot be fully appreciated until its facets are examined and experienced up close and personal. But the first step can prove to be an intimidating one. The glacier has an exposed, rugged, broken surface that isn't easy to find a way through. Without a background in glacier travel, the only safe way to explore its surface is with an experienced guide. Glacier trekking guides are well versed and practiced in mountaineering techniques, rescue procedures, and emergency medical scenarios.

For a guided trip on the glacier to be successful, a traveler needs to be outfitted with mountaineering equipment, a ride up in a helicopter, and a guide. Taking the time to make sure everything goes smooth and safe has to be the focal point for all those that are involved in the excursion. On the glacier, guides need to take time to instruct would-be mountaineers on how to use the equipment properly and safely, how to travel across the glacier attentively and responsibly, what to look for, what to be aware of, and any other information that proves relevant to glacier travel. This instruction needs to be taught diligently for the experience to be a safe one. Guides are aware that they are teaching skills to people that have little to no experience on glaciers. This takes the patience of any good coach or instructor, but time is really the bottom line. Two hours is an absolute minimum and offers just enough time to get a feel for what glacier travel is all about. In my opinion, four hours on the ice is really necessary to get a good, well-rounded experience.

It's important to understand that what the glacier has to offer is beyond visual examination. To see a glacier from the inside of a car, or a bus, or a helicopter for that matter, is not to necessarily experience it. A wilderness experience on the glacier is to be had by the exploration of it, by being surrounded on all sides by flowing ice and beautiful vistas, and by engaging that beauty in a direct, personal way. The glaciers offer a peace and power that can be felt nowhere else. People need to feel the way that the glaciers make them feel. People need to have safe access to these places. They're one of our best places.



Michael Nelson
Glacier trekking guide, Northstar Trekking

MSE



Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Re: DEIS - Helicopter Landing Tours on the Juneau Icefield - 2002-2006

Dear Ms. Hall:

We are pleased to be able to comment on the DEIS - Helicopter Landing Tours on the Juneau Icefield - 2002-2006. Last summer, our group of seven family members enjoyed a NorthStar Trekking glacier hike. This was truly one of the most wonderful recreational experiences of our lives. It is very important to us that other families have the same opportunity we did to enjoy this experience. We fully support Alternative "T" in the DEIS and encourage the Juneau Ranger to select that option for continued access to the Icefield.

Sincerely,

Mike and Sue Eichart
4919 Valley View Drive
Litchfield Park, AZ 85340

REC'D SEP 25 2001

MV
COMMENT FORM
Helicopter Landing Tours on the Juneau Icefield 2002-2006
Draft Environmental Impact Statement

September 8, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name Mac Allencour
Address 603 Mountcastle Place #10
City, State, Zip Spokane City WA 99201
e-mail address _____

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☒ Yes ☐ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☐
Alternative G ☒
Significant Issues ☒
Noise Impacts to Residents ☒
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☐
Impacts in New Areas ☐
Economic Uses ☐

My Comments

- MV 1 I think commercial operations should be allowed to grow at a
comfortable and controlled rate on the Icefield. The Forest Service should have
its decision on research and studies on the Icefield and not on their
MV 2 experts or residents of Juneau. The U.S. Forest Service jurisdiction stops at the
boundaries of the land it manages.

Over...

MWH

RECEIVED

Ellen Hall
Project Manager
Foster Wheeler Environmental Corp.
12100 NE 195th St, Suite 200
Bothell, WA 98011

October 1, 2001

Dear Ms. Hall:

Thank you for accepting the following comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2008. These comments represent my personal opinion on the matter.

As a Juneau resident and member of the City and Borough of Juneau Assembly, I have thought a lot about how to reduce flightseeing noise in Juneau. Due to the amount of phone calls and impassioned public testimony I have witnessed it is obvious to me that commercial flightseeing operations create a noticeable impact on several segments of Juneau's community. Flightseeing operations do provide a number of seasonal jobs and a spectacular visitor experience. However, we need to do a better job to mitigate their impact on Juneau residents.

I can agree with those folks who say that the actual helicopter tours on the Juneau Icefield have a minimal impact on the natural environment. Surely, if you want to pump nearly 20,000 visitors a summer via helicopters to a natural destination in Southeast Alaska, the Icefield is much more suitable than say, alpine areas on Admiralty Island. The Icefield has very little wildlife and receives relatively small amounts of outdoor recreationists. These helicopters create an impact because they must travel over business and residential zones on their way to see the miles and miles of ice.

Interested parties have been working to try to reduce flightseeing noise through voluntary measures and deserve some praise. However, these efforts have not created enough positive change for many Juneau residents. Hope may be on the horizon with the advent of alternative heliport locations, which may reduce or eliminate flightseeing noise over neighborhoods. The use of noise budgets may also serve as a possible solution to reducing flightseeing noise. Like pollution credits under the Clean Air Act, noise budgets could create a market-based approach to reducing flightseeing noise, by encouraging the use of quieter technology. I support a thorough exploration of both alternative heliports and the use of noise budgets.

Until interested parties (including CBU) can find a responsible solution to flightseeing noise, however, I find it bad public policy to allow the expansion of helicopter activity on the Icefield. We need to fix this problem instead of simply ignoring it. If we act as though this problem doesn't exist, surely it will only get worse.

This approach seems to fit well with the latest survey information of the Juneau public. In 1998, the McDowell Group surveyed Juneau residents about tourism activities for the Tourism Advisory Committee. McDowell found that 55% of Juneau residents wanted helicopter flightseeing either maintained at current levels or reduced. Only 13% of those questioned actually supported expansion of helicopter flightseeing.

I therefore support a continuation of the existing permit levels for helicopter landing tours until interested parties can find a meaningful solution to problem of aircraft noise over businesses and neighborhoods. When we move helicopter operations out to a remote location or establish a creative solution such as noise budgeting, then the Forest Service can amend this EIS to allow increased landing levels. By setting such a cap, the Forest Service will provide a great incentive for all interested parties to hammer out a solution sooner rather than later. I look forward to the day when we can increase flightseeing operations without having a negative impact on Juneau's neighborhoods.

Best Regards,

Marc Wheeler
PO Box 22007
Juneau, AK 99802

MWH 1

MWH 2

MWH 3

MWH 4

MWH 5

MWA

RECEIVED

To: ehall@fwenc.com
cc:
Subject: comment DEIS

Douglas Mertz
<dmertz@alaska.net>
>

09/03/01 07:28 PM
PST

Ms. Hall,

I have reviewed the DEIS concerning helicopter landings on the Juneau Icefield. I support Alternative B, reducing landings to the actual number in 1994.

In 1994, helicopter noise did not significantly degrade outdoor experiences in the Juneau area. I would like to return to that level.

The arguments made by the helicopter tourism industry serve merely to cover their desire to make more money at the expense of the public's enjoyment of Alaska. This "public" consists both of local residents and of tourists themselves.

Helicopter tours will be priced higher, I am sure, so that the companies will make more per capita than now. They say they want this experience available to as many people as possible, but, if that were the case, they would reduce their fares below current levels!

The companies are a valued resource for medical and rescue purposes. They were in 1994, also. I would hate to think the companies would sink and no longer be good neighbors, if Alternative B were selected.

The helicopter companies try to maintain that they "deserve" to grow. This is nonsense. Their growth costs the rest of us a price we should not be asked to pay. If Alternative B were selected, we would not need to expand the airport area or find satellite heliports, saving both the airport environment and the environment at new heliports.

Thank you for the opportunity to comment.

Margo Waring
1215 Fifth Street
Douglas, AK 99824

MWA 1

MWA 2

September 18, 2001

Ms. Ellen Hall
 Foster Wheeler Environmental Corp.
 12100 NE 195th Street STE 200
 Bothell, WA 98011

Ms. Hall:

Please include this as my official comment to the US Forest Service's Helicopter Landing Tours DEIS.

I have lived in Juneau for over thirty years and on a daily basis make use of the trail system in the Tongass National Forest. Specifically, I use the trails at the Mendenhall Glacier, the Herbert Glacier and out in the Barren Bay area. I do so primarily to experience the nature beauty of the areas, the sites and sounds of wildlife, and the peace and quiet of a non-urban setting. Over the past 15 years since the Forest Service began allowing this activity on public lands, the ever increasing number of permitted flightseeing tours have greatly degraded this experience. The almost constant drone of helicopter traffic drowns out the natural sounds of wildlife for us folks on the ground that access these areas on foot, making the experience less and less desirable.

In the current DEIS, Chapter 1 Purpose and Need, it is stated that "... Meeting this demand (for quality, outfitter-guided services that provide safe helicopter access...) includes providing for visitor safety and an appropriate balance between commercial, guided recreational opportunities and noncommercial, unguided opportunities while minimizing impacts to people and resources." (emphasis added)

In the past, members of the public have asked for limitations on the number of landings, reducing the times of the day and days of the week of operation, as well as other noise mitigation measures. In large part all of these requests have not been implemented and the industry has been awarded additional landings, thus compounding the noise problem.

In the current DEIS, the proposed Alternative B does absolutely nothing to reduce the impacts of this noise in these areas mentioned above which are frequented by the helicopter industry and hikers such as myself. In fact this alternative makes the situation worse by increasing hours of operation and the flight season. And it does not allow for a "quiet day" (or days of no permitted flight activity). Since the helicopter industry currently does not use their allotted 19000 landings, this proposed alternative actually reflects an increase in the number of landings over the current levels.

In my opinion this proposal does not meet the "balanced use" language in the purpose and need statement as the proposed policy solely meets the needs of the flightseeing industry at the expense of other user groups.

Also of concern is the noise generated by these operations outside the Tongass National Forest. Many local residents live under the flight paths of these helicopters and are subjected to 75-80 db noise on a daily basis. We have repeatedly asked the Forest Service to address this issue without success. The response, as stated in the DEIS, is one of lack of authority on the part of the Forest Service. I strongly disagree with this position. Last fall the Forest Service attempted a mediation process aimed at reducing the impacts but this failed due to the inept policy decision by the District Ranger in granting a provisional one year extension of the landing permits prior to the completion of the mediation effort. Since the flightseeing industry keeps getting their permits re-approved, there is no incentive for them to reach a mediated settlement with the local groups that wish to minimize the impacts of these operations. Therefore, the District Ranger's actions have directed contributed to this problem instead of being a positive force in resolving it.

MW: 5

MW: 6

MW: 7

Overall, I still see a bias in this DEIS as in past ones favoring the flightseeing industry. The Forest Service has not attempted to survey those trail users that frequent the impacted areas on foot to determine the level of dissatisfaction with the noise emitted by the flightseeing operations. The Forest Service continues to focus on studies from the lower 48 which quantify noise annoyance levels based on a totally different environment than what we experience here in the Juneau area, while applying little credence to the 1998 McDowell survey which indicated that 32% of those polled wished for reduced helicopter traffic.

In conclusion, I do not support the proposed Alternative E. I strongly urge the Forest Service to adopt Alternative B as it reduces the number of landings to a level that is bearable from a noise standpoint given current technology and operations; it reduces the operational hours giving residents and trail users evening hours to enjoy the natural peace and quiet; it allows for quiet days when no helicopter operations are in effect; it does not extend the season resulting in additional noise impacts; yet it allows a number of landings which satisfied the industry in previous years and allowed them to operate and make a profit. Adopting Alternative B, with the understanding that as noise mitigation measures are successfully implemented the number of landings could be re-addressed, is the appropriate and balanced approach to this issue.

Sincerely,

Michael Wilde
 P O Box 33182
 Juneau AK 99803

MW: 1

MW: 2

MW: 3

MW: 4

September 17, 2001

Peter Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau AK 99801-8041

Mr. Griffin:

Thank you for the chance to comment on the 2001 Helicopter Glacier Landing tours DEIS. I have been a Juneau resident over 33 years, I have been around helicopters all my life, I make my home in Juneau with my wife and two children. I would like to see alternative "T" selected with some aspects of alternative "T" included. Alternative "T" allows for continued operation and possible growth of an environmentally friendly and economically viable industry in Juneau.

Helicopters are a unique, and environmentally friendly vehicle, that allow a diverse range of people to access and view public lands with out impact to the lands or the wildlife. Many people that visit the state of Alaska do not have the physical capabilities or the time to access these lands through more conventional means. If however, a fraction of the people that visit the Juneau Ice Field on helicopters were to take the time to access these lands through more conventional means the environmental impact would be catastrophic.

Alternative "T" is the best option for the economy of Juneau and the environment surrounding the community and the Juneau Ice Field. Alternative "T" allows for moderate growth of the flightseeing industry without stifling it in its infancy. Alternative "T" (proposed action) does not allow for any kind of growth and by limiting the number of days of operation in some areas it has the potential to increase the perceived noise impact to local recreation users.

Please choose Alternative "T" for continued support of our tourism industry. Helicopters have proven to be environmentally friendly and the operators have made strong efforts to work with the local community by altering flight paths and altitudes where safe and possible.

Sincerely

Michael H. Wilson

MWII

RECEIVED
10-17-01

Everett Hinkley

<ehinkley@pci.net>

10/01/01 08:18 AM



To: EHel@iwenc.com

cc: englim@yahoo.com, kayaker@alaska.net, ehinkley@pci.net, kopper@pci.net, ernst@pci.net, fernstgt@yahoo.com, pgriffin@is.fed.us, Ken_Koalich@ci.juneau.ak.us, Cathy_Munoz@ci.juneau.ak.us, Gressroute@pci.com, Dale_Anderson@ci.juneau.ak.us, jpowell@alaska.net, Marc_Wheeler@ci.juneau.ak.us, Sally_Smith@ci.juneau.ak.us, John_MacKinnon@ci.juneau.ak.us, done@Local71.com, info@peaceandquiet.org

Subject: North Douglas Neighborhood Position Paper on Helicopter Landing Permits

NDNA

Ellen,

As the Noise Committee Chairman for the North Douglas Neighborhood Association, I have been asked to forward our position paper regarding the 2002-2006 Helicopter Landing Permit DEIS for the Juneau Icefield.

If you have any questions, please contact one of the NDNA officers, or you may contact me directly. The phone numbers of the primary contacts are listed on the attached document.

Thank you for allowing our neighborhood to comment on this issue.

Regards,

Everett Hinkley
Juneau, Alaska

907-463-1515 (home)

207-897-6870 (until October 8th)



- NDNA_DEIS_response.doc

RECEIVED
10-17-01

September 25, 2001

RE: Helicopter Landing Permits on the Juneau Icefield - 2001 DEIS

To: Ellen Hall
Foster Wheeler Environmental Incorp.

The North Douglas Neighborhood Association (Juneau, Alaska) recently conducted a poll of its members to address the Draft environmental impact statement prepared by the Forest Service regarding helicopter landings on the Juneau Icefield. The results of our neighborhood poll are as follows:

Poll Question #1: Flightseeing noise is a problem in the City and Borough of Juneau.

Yes	22	85%
No	4	15%

Poll Question #2: The North Douglas Neighborhood Association believes that flightseeing flights should avoid residential areas such as the North Douglas corridor (Gastineau Channel between Bonnie Brae and the bridge).

Yes	20	87%
No	3	13%

Poll Question #3: Increasing flights from the ERA facility or any other alternative helicopter sites on North Douglas will increase vehicle traffic on North Douglas Highway to unsafe levels. The highway is unsafe for common activities such as walking or biking at the current volumes. Increased traffic resulting from increased flight transfer activity will make things worse. North Douglas residents continue to have great concern over highway safety, and oppose any actions, which increase traffic for commercial activity until such time as the roadway is improved.

Yes, I agree with this statement	16	73%
No, I do not agree with this statement	6	27%

Poll Question #4: I would like the Forest Service to reduce the number of permitted icefield landings.

Yes	18	75%
No	6	25%

Poll Question #5: If you answered yes to the above question, please indicate your preferred Alternative below:

I Favor Alternative B of the Helicopter Landing DEIS	7	39%
I Favor the Citizens Alternative for the Helicopter Landing DEIS	11	61%

SUMMARY OF POLL RESULTS

This poll was conducted via email ballots and through our neighborhood online web page and received 26 total votes from NDNA members. The poll was prefaced by a neighborhood meeting on Wednesday September 12, to discuss the recommendations of the NDNA Noise Committee and to present the poll issues to the membership for open discussion and consideration. The poll was well advertised both at the

public meeting on the 12th, and via email announcements to the membership. The poll was open for 10 days allowing ample opportunity for member participation. 12 votes were received by email ballots and 14 votes were cast through our neighborhood online web page.

It was clear during the lively discussion at the North Douglas Neighborhood Association meeting on 9/12 that the members support and welcome tourism in Juneau. Many of our members, however, expressed great concern about flightseeing noise in our community, of which the helicopter tours are a primary component. The member's concern over flightseeing noise is clearly reflected in the results above (ballot issues 1 and 2).

Strong support was in evidence both at the neighborhood meeting and through the poll response to reduce helicopter landing permits in future years. The sentiment to reduce helicopter permits is clearly reflected in the poll response (ballot issue 4). Seventy-five percent of the poll respondents favored reducing permits numbers from the current level. Of those favoring decreases, the Citizen's Alternative (authored by Karla Hart) received notable support.

The very recent release of the alternative heliport siting analysis puts a twist in the entire EIS analysis, both for the Forest Service and for the private citizen. It seems appropriate that only after the proposed alternative heliports are voted on, constructed and operational, should the Forest Service re-evaluate the icefield landing numbers permitted through this EIS.

In light of these findings, we urge the Forest Service to address our neighborhood's concern with heli-flightseeing noise and safety issues in the final EIS. The NDNA supports reducing permits to reduce flightseeing impacts to our residential neighborhood.

Thank you for your consideration of these comments. Please call or email if you have any further questions regarding our neighborhood position on helicopter permitting.

North Douglas Neighborhood Association Officers

Kathy Libbey / 907-586-1907 (h) / 907-586-0236 (w) / kopper@gcl.net
Ellen Ferguson / 907-463-3532 / ezma@gcl.net
Merry Hefson / 907-586-1692

ADDENDUM A

The following comments were gathered during from several meetings of the North Douglas Neighborhood Association - Noise Committee, and do not necessarily represent the opinions of the NDNA members at large:

Any permit decision by the Forest Service should seek to minimize commercial flightseeing operations from ERA's present location and facilitate moving the operation to an alternate location with minimal residential impact. The ERA facility in North Douglas has evolved, without public comment or zoning review, into the most significant negative environmental factor in North Douglas (as evidenced by the growth in actual flights cited in the EIS and the special mention given to ERA in the CBI noise study). Any EIS that ignores this obvious fact misses the point of conducting an environmental assessment in the first place.

Noise Impacts - When considering the impacts to residents, the noise generated by helicopters cannot be evaluated fairly without including the cumulative impacts of fixed wing AND helicopter noise. The Forest Service must consider this cumulative impact in its environmental review. North Douglas residents

thus suffer from multiple simultaneous impacts, of which helicopters are the major contributor. The noise levels experienced by residents along Gastineau Channel south of the ERA facility are unacceptable at current levels of flightseeing traffic. The noise affects peoples' lives in many ways, and is especially troublesome when it invades Juneau residents' homes and the sites of formerly peaceful recreation. There is also concern about other impacts of the noise. Some of these impacts are difficult to measure but are very real nevertheless, e.g., decline in residential property values.

Is the ability to use public airspace for private gain a right or a privilege? The North Douglas Neighborhood Association Noise Committee considers the airspace above our neighborhood and city to be a public resource, access to which is a privilege that carries the responsibility to act in a manner that respects the broad public interest. Despite the well-intentioned efforts by the helicopter operators to "fly friendly", they have demonstrated that they are incapable of achieving acceptable noise levels. In spite of their best efforts, the noise remains a problem, and permit actions that convey them their privilege must take that into account.

The Draft EIS acknowledges the noise and safety problems that come from permitted helicopter landings on the icefield. By permitting this activity, the Forest Service is triggering these impacts. A number of tourism accidents in recent years have involved helicopters, and an increase in permits will increase the likelihood for such tragedies. That should be evaluated as part of the EIS.

The permitted activity triggers noise impacts not only to residents and to the wildlife, but also to our immediate backcountry. It is virtually impossible to enjoy a hike on the Juneau trail system without the presence of flightseeing noise pollution. North Douglas, as the location of several of these trails, believes it is the Forest Service's responsibility, through its permit decisions, to mitigate this situation.

Helicopter landing permits should be issued on a per day basis rather than a per season basis to limit the unfair impact of noise on fair weather days. The averaging of flights over a season paints an inaccurate picture of the true nature of this business on days when the weather is favorable for flights. The intensity of activity in North Douglas is intolerable during peak activities; daily limits such as those proposed by Karta Hart in her recent Citizens Alternative (see Addendum B below) presented to the CBJ assembly are more reasonable.

Irretrievable and Irreversible commitment of resources - The Draft EIS discusses and dismisses the concept of "irretrievable and irreversible commitment of resources". The North Douglas Neighborhood Association Noise Committee believes the loss of time devoted to natural quiet and the loss of property values to be resources that are irretrievably lost.

Economic analysis - The members of the North Douglas Neighborhood Association understands that tourism is an important cornerstone of our local economy. Tourism needs to be sustainable and of a high quality. Public resources that are allocated to any segment of the economy need to be equitably allocated. An economic analysis must recognize that any decision has both benefits and costs and those must be fully disclosed.

The Draft EIS in current form does not have an adequate economic analysis. There is a brief statement in Chapter 3 page 1 that asserts that tourism is important and that even though much money goes to cruise lines, the wages and money for supplies that would stay in Juneau would be "substantial". How much is substantial?

The DEIS fails to address any economic costs of the flightseeing noise to our local economy, only the positive impacts are alluded to. We have reports of locally owned and operated tourism related businesses, in various parts of the borough, that are being adversely impacted due to current levels of flightseeing. Outdoor services and B&Bs are among those who report that their clients complain about noise of flightseeing. Tourists also value peace and quiet and come to Alaska wanting and expecting that

quality of experience. Reduced safety margins and decreased quality of services also have costs which cannot and should not be ignored.

The DEIS "Purpose and Need" section states "...providing for visitor safety and an appropriate balance between commercial, guided recreation opportunities and noncommercial, nonguided recreation opportunities while minimizing impacts to people and resources." We interpret this to acknowledge that this decision is making an allocation to those uses in the landing areas (the ice field) and that there will be costs ("minimizing impacts to people and resources"). Our contention is that the decision must be made after a full analysis and disclosure of costs to the broader tourism based economy and residents.

Conclusion - We (the NDNA Noise Committee members) believe that it is possible to conduct flightseeing activities in a manner that is far less intrusive and costly to residents such as those in North Douglas. This change will not occur without regulatory actions that force changes that are not forthcoming from the operators themselves. Until changes are implemented which substantially reduce the noise impacts to residents, we request a reduction in the current icefield landing permits issued by the Forest Service. The final EIS and Record of Decision should be based on Alternative B, the Citizens' Alternative, or a variation of these two alternatives which drastically reduces flightseeing permits to the icefield.

NDNA Noise Committee Members

Everett Hinkley / 463-1515 / ehinkley@gcl.net
Rory Darling / kayaker@alaska.net
Jan Meyers
KJ McCall / angkim@yahoo.com
Rainee Godwin

ADDENDUM B

Alternative B

Number of landings: 11,881 (1994 actual use level)
Hours landings can occur: 8:30am-6:00pm
Days per week landings can occur: Monday - Friday (5)
Days per season landings are allowed: 114
Maximum number of landings per day: No limits

Draft Citizens' Alternative - presented to the CBJ 8/20/01

Number of landings: 11,881 (1994 actual use level)
Hours landings can occur: 8:30am-6:00pm
Days per week landings can occur: Sunday - Friday (6)
Days per season landings are allowed: 128
Maximum number of landings per day: 93

"Neil MacKinnon"
<nmacKinnon@gci.net>

To: <ehall@twent.com>
cc:
Subject: Ice Field Landings

09/26/01 10:24 PM

NM

REC'D SEP 27 2001

Greetings

Please put me on record as supporting an increase in helicopter landings on the Juneau Icefield... The only downside that I can see to increased landings on the Icefield is the continual whining of those opposed to tourism in Juneau. Let the helicopters fly they sound much better than the 'I don't like', 'I don't want', whining that we all have to hear to much of.

Neil MacKinnon
1114 Glacier Ave
Juneau, Alaska 99801

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NorthStar Trekking

September 27, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Helicopter Landing Tours on the Juneau Icefield 2002 - 2006
Draft Environmental Impact Statement

Dear Ellen:

Thank you for the opportunity to comment on the Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement (DEIS). Overall the document does a good job covering the issues that relate to the helicopter landing tours. There are some corrections, clarifications, additional information and suggestions I will offer in addition to my comments on the each of the alternatives.

SUMMARY

Alternative F most closely meets the needs of the traveling public wishing to access the Juneau Icefield while reducing impacts to residents and other recreational users. I recommend Alternative F be selected by the Forest Service with some modifications. As discussed below, I suggest changing Alternative F to have the same distance from wildlife in the new areas as in existing areas, allow more flexibility for use of sites within the trail end buffers during the early season, keep the lower Eagle Glacier closed to landing tours, and to allow Antler Glacier Lake landings. I also suggest a modification to calculating the 5% annual capacity growth.

ALTERNATIVES DISCUSSION

Alternative A

As point out in the DEIS, Alternative A does not meet the purpose and need of the Proposed Action and does not protect public access and provide commercial guided recreational opportunities as directed by the Forest Service Handbook and Forest Service Manual. Also as pointed out by the Forest Service, flightseeing-only tours are outside the jurisdiction of the Forest Service. The DEIS acknowledges that flightseeing-only tours occur in Alaska and elsewhere. It would be more accurate to say that landing tours like the ones currently operated under permit by the Forest Service are the exception rather than the rule. In most popular air tour locations such as Hawaii, the Grand Canyon, and New York, much larger volumes of air tour passengers are carried each year on non-landing tours than helicopter operators fly to the glaciers around Juneau each year. These trips are generally shorter in duration and cost less. With the close proximity of several glaciers, Juneau is very well situated for flightseeing-only tours to occur. It is likely that there would be as many helicopter flights, if not more, if landing tours were precluded as would happen under Alternative A or curtailed as would happen under some

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of the other alternatives. While the number of flights would likely not decrease, the quality of the experience would decrease and the economic benefit to the community and the Forest Service would be less.

Alternative B

The reduction of permitted landings to 1994 levels would not meet the demonstrated demand for landing tours. Priority use permit holders, Tensco and ERA, would retain most of the capacity available under this alternative. Smaller operators, such as NorthStar Trekking that offers an alternative to the larger volume operators, would have a difficult time obtaining enough permit capacity to remain a viable operation. It is likely at this permit level a significant amount of the unmet demand would be accommodated by flightseeing-only tours (both fixed wing and helicopter).

The reduced hours that landings would be allowed would reduce the opportunity for visitors to Juneau who arrive in the afternoon to take a landing tour. Especially impacted by the reduced hours would be the Glacier Trekking tours offered by NorthStar Trekking. These trips are longer in length and are one of the highest rated visitor experiences in the state. The reduced hours would allow less opportunity to offer these trips and may make it necessary to offer more of the shorter tours that can be fit into the shorter time frame.

Allowing landing tours five days a week would reduce an already short season by approximately 30%. It is challenging enough for a capital intensive business like a helicopter operation to make it financially in the five month summer season. Weather is already a factor that reduces the season and its noise impact by anywhere from 5-15% depending on the year. Additionally the reduced days of operation would lessen the opportunity for visitors to access the glaciers.

Alternative C

By limiting landing permits to 1999 actual use levels there is no room to accommodate increased demand with landing tours. Flightseeing-only tours are likely to grow over the 5 year permit period. The reduced days of the week (six) that landing tours would be allowed, while less than under alternatives A or B would still be significant in its negative economic impact and reduced opportunity for visitors to access the National Forest.

Alternative D

Alternative D, limited to 1999 authorized use levels, would allow some growth but would not be enough to meet the demand likely to occur over the 5 year period covered by the EIS. The limitation on days of the week would cause the same problems described above. The addition of the new areas north of the 1995 EIS area is an appropriate expansion but the increased distance from wildlife is unnecessary and inappropriate. The new area could provide opportunities for remote backcountry experiences but under the restrictions in this alternative it is unlikely it will see any use. Due to the distance from Juneau, it is neither practical nor economically feasible for there to be a significant number of operations in these areas. It is unlikely that the new area will reach even the level of flights conducted the first year helicopter landing tour permits were

issued (1984). The authorization of motorized snow vehicle tours will provide a different type of opportunity for visitors. It remains to be seen if there will be demand for this kind of experience. If snow vehicle tours are authorized, great care needs to be taken in deciding where and how they will be conducted. The visual impact of snow machine trucks spread over a large area would be disconcerting for many people wanting to fly over the icefield. An area should be found that is away from the main flightseeing routes and motorized snow vehicles should be confined to a reasonably small area like the dog sled tours currently are. Other operators under permit should be consulted during the planning and development of any motorized snow vehicle tour permits.

Alternative E

The restriction of use to 1999 authorized levels would likely not meet the demand during the period covered by this document as described above. The days of the week restrictions, even just for the new areas, are unreasonably restrictive as noted above. The exceptions for safety in the early season make the trail end buffers more reasonable. These exceptions should give the Forest Service more latitude to extend depending on snow and ice conditions. Glacier conditions vary dramatically from year to year, particularly in the early season on the lower part of the glaciers. The Forest Service should have the discretion to approve exceptions for as long is appropriate for the conditions. Years when the lower glacier must be used for longer periods of time because of snow precluding higher locations are the same years when the trails will also have snow limiting their use.

Alternative F

Alternative F comes the closest to meeting the likely demand for helicopter glacier landing tours over the period covered by the EIS while minimizing impacts. Although it is difficult to predict precisely what demand will be over the next five years, the 5% annual increase is a reasonable expectation. This rate is higher than the recent growth in air tours but the rate of increase over the years has been highly variable and landing air tours have remained one of the highest rated experiences in Alaska. If the number of landings authorized is higher than is needed to meet demand, the number landings used will only be what is needed to meet the actual demand, as has been demonstrated since the current authorization level was set by the 1995 EIS and Record of Decision. One concern with the number of landings authorized in this alternative is it bases the 5% increase on the authorized use level rather than actual use. Figuring the increase in this way could actually allow an increase of 7% a year over current use levels. While it is reasonable to expect some rebound in the growth rate of flightseeing landing tours, the 35% increase is more than is likely to be needed and will only serve to alarm people in the community. I suggest starting with the 1999 authorized use level of 19,039 and increase landings 5% for the first three years of the 5-year period. This will in effect give about the same total capacity as a 5% increase per year from current levels and allow for the possibility of some higher growth rates in the early years if needed.

The hours in which landings can occur in this alternative (8:30 a.m. - 8:00p.m.) and the 7 days per week operations for both existing and new areas are necessary and appropriate as discussed above. The addition of Death Valley and the new areas north of the 1995 EIS area will provide opportunities for new types of experiences. Death Valley provides an icefield accumulation zone

experience at a lower elevation and with safer access and egress than other areas of the Icefield. Backcountry travelers rarely use this area, and when they do, they usually access it by helicopter. The new area to the north can provide a remote backcountry Icefield experience because of its distance from the usual helicopter flightseeing routes. The addition of the upper Eagle Glacier area for landings would have no effect on other recreation users and would provide another Icefield environment for expanded experiences. I do have some concern that authorizing landings on the lower Eagle Glacier would be perceived as increasing impacts to recreational users in another area. As a practical matter the lower Eagle Glacier is not well suited to landing tours but mid way up the glacier does provide some areas for low volume use and be far enough removed to avoid actual impacts in the area of the trail and cabin. Stand off distances from wildlife should be the same in new areas as they are in existing areas for the reasons stated above. And trail end buffers should have more flexibility allowed as discussed above.

Alternative G

The authorized Icefield landings increasing by 10% annually goes beyond what can reasonably be expected to be the demand or the operators ability to operate at this level during the period covered by this EIS. Selection of this level of authorized use at this time is unnecessary and will only serve to alarm the community. Otherwise the components in this alternative are appropriate including hours of operation, days of the week, new areas and especially standoff distances from wildlife. The 1,500' stand off distance has proved to be very effective and should be used as the standard in all areas rather than the more restrictive distances in other alternatives.

MITIGATING MEASURES - ALL ALTERNATIVES

Landing Sights and Flight Routes On page 2-19 "proposed locations of landings and flight routes" are discussed. Not all flight routes are shown on the maps. For example, in response to complaints about helicopters flying in the vicinity of the Windfall lake cabin, operators started using a route up McGinnis Creek on good weather days to get to the Herbert Glacier. This route was included in the latest maps and information presented to the city, the public and the Forest Service. The DEIS says, "...locations of landings with the associated flight routes will involve those that are identified and approved in the FEIS and ROD." The landing sites vary for all of the reasons stated in the DEIS and it is not practical or necessary for the FEIS to approve the specific sites or the flight routes as these are outside the jurisdiction of the Forest Service. The DEIS acknowledges that these routes and landing sites vary so I would remove the language about the FEIS and ROD approving them.

Mitigating for Wildlife On page 2-24, item 3, the 1-mile buffer for mountain goat kidding areas is overly restrictive and is not required by the Forest Plan. Attached is a letter dated September 20, 2001, from Bob Maynard addressing this issue in detail.

The mountain goat habitat capability model referenced here is a general model developed for Forest wide planning and was not intended for site specific use as it is being applied here with the Forest Plan standards and guidelines. This model includes terrain that is not mountain goat habitat, where goats have not been seen in my 20 years of flying in this area, or where incidental sightings have occurred but would not qualify as traditional habitat. Even with the updated

information this model and the maps being used by the Forest Service overstate the areas that need to be avoided.

As the DEIS states on page 2-27 "The Forest Service has no indications of mountain goat population declines, adverse impacts, or problems in these areas." This is due in part to the effectiveness of the mitigating measures that have been in place and the efforts of the helicopter operators to abide by them.

In the "Environmental Consequences for Wildlife" section, most of the studies discussed regarding mountain goats have been included in previous analysis of the helicopter landing tours and been the basis of the mitigation measures that have proved to be effective. The one study that is new to this analysis is Cote (1996). Cote recommends a much larger buffer of 2,000 meters. This seems to be the rational for the more stringent mountain goat buffers in some of the alternatives. There are a number of differences between the situation being studied in Canada and the one we have around the Juneau Icefield, including the type and availability of escape terrain, the type of helicopter operations being conducted, and the experience of the goats with helicopters. On this last point it should be noted that some goats in the herds being studied by Cote were collared. There is only one way I know of to get a collar on a mountain goat and that is capturing them with a helicopter. The response of goats that have been chased, darted, and collared is going to be significantly different from those that have been left alone. The observations near Juneau seem to bear these differences out and the more restrictive measures suggested by Cote are not necessary in this situation.

It is not a reasonable assumption that the larger buffers need to be applied to the new areas because the goats in these new areas have not been habituated as the goats in the long-term tour areas have. Flights in these new areas will increase at a much slower rate than they did in the core tour area because of the distance and flight time involved to reach them. It is unlikely that the level of activity in these areas will ever come close to the number of tours operated in the first year permits were issued and certainly will be lower than the levels where goats are observed to be doing fine with the measures currently in use.

In the existing permits for helicopter landing tours, there is language that says operators do not have to make ad hoc changes in their flight path to avoid incidental sightings of goats or to change from established flight routes. This same language should be incorporated into the new permits.

Mitigating for Recreation On page 2-27, there is a mitigation measure that calls for 1,500 feet from trails, cabins, with an exception for a number of trails under existing established flight routes. Included in this list of exceptions is "...the southerly section of Montana Creek Trail....". The Montana Creek drainage, continuing on to Windfall Lake and the Herbert Glacier has been an established flight route for many years. I would suggest dropping the "southerly section" in the listing of Montana Creek as it gives the impression that further up the trail there may not be overflights at a lower altitude than the 1,500'. The operators have adjusted routes to avoid this trail as much as possible but Montana Creek remains a low weather route and aircraft may not always be 1,500' above the trail.

Item 3 in this section, on page 2-28, talks about minor developments such as "dogsled camps or large group facilities". Elsewhere in this document the concept of minor developments is applied to landing sites that do not meet the same kind of facilities development that seems appropriate for this designation, such as a temporary tent for safety purposes.

OTHER COMMENTS

Minor Development. On page 1-5, the DEIS references "Figure 1-2 indicates sites where overnight camps or other minor development have been requested." In the glossary it says that all participatory activities being proposed are considered minor development. This statement seems to be in conflict with Fig. 1-2, which shows some of the sites as minor development but other landing sites are not. Clearly it would be hard to classify most of the activities and sites as minor development. Even some of the sites on the map that are shown as minor developments only have a mountaineering tent that is there for safety and may or may not be put up. It hardly seems justified to classify this as a minor development.

The issue of minor developments comes up again on page 1-20. It continues to talk about enclaves all being minor development and states "Enclaves would not be allowed in LUD II areas." The definition in the glossary is broad enough to include anything that would occur under permit as an enclave. This prohibition seems to them be in conflict with Table 1-2 at the bottom of the page, which summarizes the maximum recreation and tourism development generally allowed by LUD. According to this table, in a LUD II area, tourism development would generally be allowed to support up to 24 overnight guests, 50-day users, and 10 landings per day. It is not clear to me why the issue of enclaves in LUD II areas is being addressed in this document, since no landings or activities are being considered in this LUD, or what the rationale would be for precluding them since the Forest Plan generally would allow these activities.

Primary Season On page 1-10, under Proposed Action, the DEIS states that the cruise ship schedules indicate that May 1, is now the traditional "first cruise ship arrival" day. For 2002 the first ships is scheduled to arrive on April 30th. This issue is also raised on page 1-15, stating "...the primary season, May 1 through September 30.... shoulder season April and October." While most of the ships arrive between the beginning of May and the end of September, other people besides cruise ship passengers want to land on a glacier and these trips should not be precluded in the months November through March.

Flight Routes On page 1-10, under Proposed action, the DEIS says it assumes the flight paths similar to those used during the 2000 season and displays those, and routes associated with the new area, in Figure 1-5. It appears the routes shown in Figure 1-5 are a compilation of routes submitted by individual operators. The result looks very uncoordinated when in fact the operators have been working in conjunction with the FAA and the city, through the Tourism Voluntary Best Management Practices Program, to refine and standardize routes and procedures in order to improve safety and reduce noise impact. The result of these efforts is a detailed map of the routes used for air tour operations in the vicinity of residential and recreation areas. I have provided Pete Griffin with a large-scale copy of these routes. These are the routes that should be depicted in the EIS. As stated elsewhere in the DEIS, there are deviations from routes due to weather, traffic conflicts, other safety reasons, or at the direction the Juneau Tower. But

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operators strive to adhere to the agreed upon routes as closely as possible. Once aircraft are beyond the front range of the mountains, routes vary depending on destination, weather, or for quality of the tour.

NorthStar Base Location On page 1-15, item 3, the DEIS incorrectly identifies the NorthStar base as "...near the midpoint of the Juneau Airport runway on the northeast side. The NorthStar base is more accurately described as being near the northwest end of the airport runway.

Tour Length and Area of the Trip On page 1-15, Proposed Icefield activities include the following: "Icefield landing tours varying in duration from 1 to 6 hours and multiple day excursions". Also on page 1-17 the DEIS states "The duration of these tours would range from about 90 minutes to several days...." The length of time for these trips actually ranges from about 60-90 minutes (including 20-30 minutes on the glacier) for the tours and for the treks from 3 hours (with 2 hours on the ice) to several day trips. Trips of any length, including all day trips should not be precluded as long as they abide by the other Forest Service criteria, such as the landing restriction times. This section also states "...activities... would remain in the same general vicinity." This is generally true but NorthStar Trekking conducts longer trips that are point-to-point treks that are designed to traverse the Icefield and the glaciers.

Mechanized Snow Vehicle Expeditions on the Icefield Also listed under Proposed Icefield activities on page 1-15, are mechanized snow vehicle expeditions. If these type trips are allowed, careful attention should be paid to where and how they are conducted to avoid negative effects on flightseeing operations and other Icefield activities.

Forest-wide Standards and Guidelines On page 1-20, the statement "Generally allocate no more than one half ...to guide operations": It almost goes without saying but should be noted that the nature of the Icefield/glacier area generally requires guides for the public to safely access them.

Forest Service Handbook/Manual The direction from these directives, on page 1-22, talk about providing commercial outfitting and guiding services, providing outdoor recreation opportunities, and promoting public access. The helicopter glacier landing tours are consistent with this direction and are one of the only safe ways for the public to experience this unique area of the National Forest system.

Noise Budget On page 1-32, the idea of encouraging operators to incorporate quiet technology helicopters into their fleet is a way to allow growth without an increase in noise impact and should be included.

CONCLUSION

In summary, the helicopter landing tours are an appropriate and necessary service to provide access for the public to this unique environment. The number of people taking these tours has grown over the years because people are interested in learning about the glacier/Icefield environment and they perceive these trips as providing a high quality experience. There are many remote areas in Alaska where experienced mountaineers can, with a great deal of time,

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effort, and skill, have a truly solitary wilderness experience. The Juneau Icefield is one of the only places accessible to people of all ages and abilities. The helicopter landing tours provide so much more to the public than a non-landing trip, with little or no increased impact. This is an important opportunity to provide the public and reasonable growth to meet demand should be allowed.

Sincerely,



Bob Engelbrecht
President

Attachment

Cc: Pete Griffin

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Robert A. Maynard
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September 20, 2001

OVERNIGHT MAIL and BY FAX

Mr. Robert Engelbrecht
Northstar Helicopters, Inc.
1910 Renshaw Way
Juneau, AK 99801

Re: Draft EIS For 2002-2006 Juneau Icefield Helicopter Landing
Tours; Interpretation of Tongass Forest Plan To Require One-
Mile Buffer Around Mountain Goat Kidding Habitat

Dear Mr. Engelbrecht:

You have asked me to review and provide an opinion regarding the validity of an interpretation of revised Tongass Land and Resource Management Plan ("Forest Plan") mountain goat standards and guidelines, contained in the July 2001 "Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement" ("EIS"). The interpretation of concern is the statement in the Draft EIS that the Forest Plan requires a one-mile buffer between helicopter tour landing sites and identified "important mountain goat kidding areas." Draft EIS at 2-24. The Forest Plan standard and guideline to which this interpretation can be attributed provides for, where feasible, locating facilities, camps, log transfer facilities, campgrounds, and other "developments" one mile or more from important mountain goat wintering and kidding habitat. Forest Plan at 4-117.

CONCLUSION

My review of the mile buffer interpretation is based on the July 2001 draft EIS and the EIS and Plan documents completed and circulated to the public for the 1997/1999 Forest Plan revision, including the Forest Plan and EIS. My review indicates that the statement in the draft EIS is not a reasonable interpretation of the

[26885-0003/SL012630.146]

1 mile buffer standard and guideline in the Forest Plan. My review indicates that the draft EIS interpretation is not supported by language in the Forest Plan or the purposes that the standard and guideline is intended to serve. My review further indicates that this recently formulated interpretation was not intended or contemplated by the Forest Service or other participants in the Forest Plan revision process.

Therefore, the interpretation does not appear to be correct or valid. It is not likely to be entitled to much if any deference by a reviewing federal court. It appears to be clearly subject to invalidation through legal challenge if adopted in the final EIS and decision concerning 2002-2006 Juneau Icefield helicopter tours.

DISCUSSION

The forest-wide mountain goat standards and guidelines in the Forest Plan begin with the following general requirement:

- A. Provide for the long-term productivity of mountain goat habitat and viability of mountain goat populations, both native and introduced.
- The standards and guidelines then more specifically state:
1. Locate facilities and concentrated human activities as far from important wintering and kidding habitat as feasible.
 - a) Where feasible, locate facilities, camps, LTFs, campgrounds, and other developments 1 mile or more from important wintering and kidding habitat.
 - b) If the 1 mile or more distance cannot be achieved, mitigate possible adverse impacts by seasonally restricting or regulating human use, and other site specific mitigation measures.

The Forest Plan contains a separate guideline specific to helicopter and other aircraft flights. This guideline provides that flights:

2. . . . should maintain a 1,500 foot vertical or horizontal clearance from traditional summer and kidding habitat and

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animals whenever feasible. Where feasible, flight paths should avoid known mountain goat kidding areas from May 15 through June 15. Pilots will not compromise safety.

The draft EIS, however, states: "A 1-mile buffer will be established between helicopter landing sites and important mountain goat kidding areas identified on Figure 2-9 during the kidding season May 15 to June 15 each year, as required by the Forest Plan." (emphasis supplied.) Draft EIS at 2-24. The draft EIS states that site specific mitigation measures rather than a one-mile buffer will be applied to "historically used sites (on Mendenhall, Norris, Herbert, and Gilkey glaciers), where monitoring data have shown that the mountain goats have become habituated to the helicopter landing tours" "to meet the intent of the standards and guidelines for mountain goats." *Id.* The draft EIS goes on to state: "The Forest Service has no indications of mountain goat population declines, adverse impacts, or problems in these areas." *Id.* at 2-27.

The language of the Forest Plan mountain goat standards and guidelines does not support a conclusion that the mile buffer applies to helicopter tour landing sites. The Forest Plan sets out a separate and distinct mile buffer guideline for "facilities, camps, LTFs, campgrounds, and other developments" and a narrower 1,500 foot buffer guideline for helicopter flights. A helicopter landing simply does not represent any development of a site. Likewise, the limited and temporary placement of equipment (e.g. safety tent) at a regularly used site does not amount to development. For purposes of interpreting Forest Plan requirements, helicopter tour landings are properly considered part of the helicopter flight, particularly since the landing is the nexus for Forest Service jurisdiction to regulate flights.

There is no indication in the draft EIS or Forest Plan that a larger separation is required for landings than the aerial portion of the flight. To the contrary, the draft EIS documents that at established landing sites, to which a 1,500 foot or narrower buffer has been historically applied, there is no indication of harm to goats or their habitat. This indicates that there is no basis for applying a mile buffer to meet the stated general requirement and purpose of the Forest Plan standards and guidelines—providing for long-term mountain goat habitat productivity and population viability.

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Mr. Bob Engelbrecht
September 20, 2001
Page 4

The public comments and other content of the Forest Plan EIS do not indicate any substantial concern about helicopter tour landings on mountain goat populations or other support for applying a mile buffer to landing sites. Concerns regarding wildlife and related standards and guidelines in the Forest Plan process focused upon timber harvest and related road, logging camp, and LTF development, not recreation and tourism impacts. Concerns centered on species other than mountain goats, such as goshawks, deer, and wolves. There does not appear to be any other support in the Forest Plan and EIS documents for interpreting the mile buffer in the mountain goat standards and guidelines to apply to helicopter landing sites.

Under Administrative Procedure Act ("APA") review, federal courts generally defer to agency interpretations of their own regulations on issues within the agency's expertise. However, interpretations that are not supported by the agency record or that are otherwise unreasonable are not entitled to deference and may be invalidated under the APA as arbitrary, capricious, and an abuse of discretion. Courts are likewise less likely to defer to newly formulated interpretations that are contrary to past practice, and such interpretations are similarly subject to being voided. Thus, even under a generally deferential APA standard of review, the interpretation in the July 2001 draft EIS that the Forest Plan requires a mile buffer between important mountain goat kidding areas and helicopter landing sites appears to be quite vulnerable to legal challenge.

Sincerely,

Robert A. Maynard

Robert A. Maynard

RAM:vrp

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September 23, 2001

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Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011 ehall@fwenc.com

RE: Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

Dear USFS reviewers and friends,

Please consider:

Although the US Senate has not adopted the Kyoto Protocol (modified), the concepts in the Protocol are serving as a guide for many US companies that are finding "profitability" in cutting back CO2 emissions.

The USFS, the capital city of Alaska, and associated private businesses will correctly contribute to dialing back atmospheric emissions by selecting an alternative that encourages fuel efficient flight conditions including short travel distances, optimal load and flying operations, and limited numbers of landings per day and per season. Earth's atmosphere is singular. We share this "ocean of air" with all other creatures on Earth. Our actions contribute to the health of the whole biosphere. The risk of negative anthropogenic impacts requires conservative, precautionary action.

I recommend that a modified Alternative B is most workable.

Modifications:

- Increase days per week to 6, and days per season landings are allowed to 128.
- Decrease the landings per day to 93 firm. (Do not allow transferability because of weather conditions or low demand days, etc.)

Predictability is important for humans and wildlife.

Do not permit the Antler Glacier Lake landings that do not meet the minimum wildlife buffers identified in the Forest Plan. In all your considerations and decisions, minimize adverse impacts to wildlife and wildlife habitat.

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NW 4
I support the Forest Service decision to allocate the limited number of landings through a prospectus and bid award process. I hope that this process would give priority to locally owned companies, as they are most likely to be responsive to community concerns.

Specific items to change in the document:

NW-5 | Page 1-18: Issue 1: Add Douglas Island to quality of life list.
NW-6 | Page 1-19: Issue 3: Add to units of measure, predictability.
NW-7 | Page 1-21: Be specific with nesting and brooding dates for swans, sandhill cranes, etc.

Two additional thoughts:

I've enjoyed the USFS film at the Mendenhall Glacier Visitor Center. It does a marvelous job of "taking one over the icefield". (Does it do damage by unintentionally sending the message that you haven't seen the glacier until you've walked on it?)

Lately, I've enjoyed the Mt. Roberts Trail... in the up direction, and the Mt. Roberts Tram... in the down direction. The Tram is fueled by our local hydroelectricity. The trails are improved to carry the impact of thousands of visitors, thanks to cooperative work by Trail Mix, Mt. Roberts Stewards, Gasineau Guiding and Goldbolt. I'm including these thoughts in this letter because it helps to think about the palette of alternatives that exist in our community for experiences that are wonderful, memorable and profitable to the community and at the same time sensitive to impacts on "the commons" on which we all depend. (The Tragedy of the Commons, Garrett Harding).

Thank you for your consideration,

Nancy Waterman

NWW

REC'D SEP 25 2001

21 September 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 193rd Street
Suite 200
Bothell, WA 98011

NW 1
I want to express my desire in supporting Alternative F presented in the Helicopter Landing Tours on the Juneau Icefield 2002-2006, Draft Environmental Impact Study (DEIS).

NW 2
I am an employee of Era Aviation and work as a helicopter pilot in Juneau conducting Icefield tours and glacier landings from May - September each year and these remarks are my own opinions and not necessarily the company's. As a tour pilot here, I have what would seem an obvious interest in the continuation of these tours. My interest though is not in job security (my employment is secure be it here in Juneau or elsewhere) so much as a gut belief that the public should have access to these public lands. And, it seems only reasonable that government agencies not put in place policies that guarantee zero growth of business.

NW 3
I attended the public comment meeting held 6 SEP 2001 at the Guesthouse Inn in Juneau, AK. I consider myself a reasonable person so was somewhat amazed, irritated, and confounded by concerns/remarks of a few local residents regarding helicopter activity as it relates to glacier landings. All vocalized areas of concern were addressed in the DEIS, whether to the residents satisfaction or not. I believe it a grotesque exaggeration to imply the Juneau area helicopter overflight noise is a source of learning disabilities or any other type of behavioral problems; especially considering a normal conversation can be held during the overflights. Passengers riding in a car with a blaring radio encounter more intrusive noise!

NW 4
There appears to be a critical misunderstanding amongst the local public. At the risk of sounding boisterous, it seems local residents do not understand that the helicopter/icefield relationship in the DEIS exists only as a matter of regulating landings. That being the case, if no landings are made, no regulation of routes exists and overflights of areas are at the discretion of the individual companies without a mandated forum for public comment. I think it important, whether it the responsibility of this DEIS or not, for the residents of Juneau to understand this concept. Operating in concert with the Forest Service provides a mechanism for route consideration not otherwise available as a matter of course.

Lastly, I would like to provide a few anecdotal remarks:

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• In over 1,200 flights in the icefield I've never seen a Bald Eagle flying over the glacier. But, eagles are often numerous in the immediate vicinity of the Era Heliport, even during takeoffs and landings.

- NW 6
- Contrary to what seemed the mood of the meeting, we at Era are not a bunch of thoughtless renegades intent on doing nothing but aggravating the local populace and habitat. Within operational safety parameters, we always consider the 'people on the ground' and do nothing to deviate from established flight routes for the purpose of viewing wildlife.
 - The reaction of passengers upon viewing the glaciers and walking on their surface often mimics that of a child on Christmas morning. People are overjoyed at the experience.

Thank you for your consideration.

Nathaniel W. Williamson
Nathaniel W. Williamson
9042 Wendy Dr SE
Olympia, WA 98513

h360-413-7458
spudman27@aol.com



Peggie Gordon
<PeggieGordon@excite.com>

08/27/01 08:12 PM
MST

To: ehall@twarc.com
cc:
Subject: Helicopter Landings on Juneau Icefield

PG
RECEIVED
RICE-ROAD

96-1

Please do not stop or cut down the helicopter landings on the Juneau Icefields. It is one of the most wonderful things I have done since moving to Juneau, and I think all people, whether visitors or residents, should be able to do it. Prior to moving here, I only saw helicopters used in medical emergencies, or in fires, and it is wonderful to see helicopters used in flightseeing and taking people to the glaciers.

Thank you.

Peggie Gordon
3335 Tongass Blvd. #3
Juneau, AK 99801
907-790-4556

Send a cool gift with your B-Card
<http://www.bluemountain.com/giftcenter/>.

RECEIVED
10-1-01

PHa

To: "ellen hall" <ehall@twenc.com>
cc:
Subject: DEIS Helicopter Landings Juneau Icefield

"Clayton"
<pat-clayton@gcd.net>
>

10/01/01 10:37 PM



Dear Ms. Hall:

I propose that the conditions for helicopter landing tours 2001-8 be basically those described in Alternative B (DEIS) with these exceptions:

Days per week: 6, excluding major holidays

Days per season: 128

Flight Paths:

Fair weather and poor weather routes shall be designated/voluntarily chosen by the operators to each permitted landing area; if weather does not permit flying above minimum altitudes (1500'), flights will be cancelled until the ceiling lifts.

Mountain goat kidding area should be avoided if possible May 15- June 31. I would like to see the word "feasible" replaced with "possible". I'm also quite interested in the possible mitigation measures that might be employed if helicopter traffic can be linked to negative population effects or individual stress reactions

Routes should alternate over noise impacted residential areas, so that mini-periods (several hours or half a day) of noise relief would occur even in heavily impacted neighborhoods.

Landing locations: no new areas, no landing; in goat habitat (I believe this is a USFS policy)

General comment: If no negative effects are detected in goat and other wildlife populations, and the operators are able to reduce operating noise and this can be demonstrated by noise monitoring data, I would favor a moderate increase over the 1994 # of landing when the permit conditions are again up for review.

Thank you for the opportunity to review this DEIS.

Sincerely,

Pat Harris
925 Fritz Cove Rd
Juneau, Alaska 99801

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PHa
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PHa
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Pete Griffin
Tongass National Forest
USDA

Re: Helicopter Landing on the Juneau Icefield

My preferences for flight seeing alternatives are those, which minimize the number of flights but still allow the industry to maintain a reasonable income. Limiting areas of helicopter tourism would be beneficial for local users.

PHa
1

As a local user, I have had the unhappy experience of spending hours hiking up Blackberry Ridge to the Observation Peak area by Camp 17. Upon arriving, my friend and I were deflated by the arrival of a helicopter noisily discharging a group of people who made fiscal commitment only. They too wanted to enjoy this beautiful place, but their quick arrival, their short hike, and then their quick departure was surreal and made our efforts less meaningful. We thought that we could go into the mountains and avoid this kind of intrusion but were mistaken.

PHa
2

My family frequently walks the Mendenhall River trail, and in the summer we come to expect the tranquility of this trail to be interrupted by the 20-minute interval of helicopters coming or going up the Mendenhall Valley. This is far from the desirable walking experiences we have in the fall/winter months where the natural sounds of the woods and its solitude are experienced.

Several years ago my wife and I crossed the icefield on skis from Atlin, B.C., to Juneau. After reviewing those proposed flight paths and landing areas this trip would be far different today and in the future. The quietness and the loneliness we experienced on the icefield was powerful and rewarding. The only sounds we heard was the gently breezes in and through the valleys and mountains. The time of year was the end of June and for 10 days we enjoyed the mountains to ourselves.

An Anlier River trip is a remote and beautiful recreational adventure. My wife has done this trip twice, I once. This valley has a unique wild character not found in many places so close to Juneau. Locals have traditionally used this area for hunting and boating. Daily use of this narrow river valley and the lake at the headwaters by helicopter and airplane tourism would change the character of this place profoundly. A regular onslaught of aviation into this area would drive the wildlife out of this valley. I look forward to exploring this river and its beautiful bearwater lake with my children someday.

My life is impacted by the noise of these helicopters. I would like a reduced number of flights to be implemented. Even with a reduced number of flights, impacts would be experienced, however, the trade off would be less significant and the tourism industry would still be allowed to make a profit.

PHa
3

The following issues are important to me:

- helicopter free zones be created and enforced;
- wildlife altitude restrictions be increased;
- establish recreational corridors for hikers (spacing them the noise of helicopter fleets);
- encourage centralized departure areas for helicopters;
- control the hours of operations (from 8am to 6pm);
- limit the days of operation to weekdays only (allowing holidays and weekends to be noise free and icefield landing free);
- reduce flight paths over populated neighborhoods (find alternative ways to access the icefield);

Helicopter-free zones and wildlife habitat altitude restrictions are important. I would suggest that helicopters not follow ridge top hiking trails. When animal habitat is observed, and animals are present, altitude minimums should be no less than 2000 feet. Valleys like the Aniter, Gilkey, Herbert, Eagle, Mounana, and Nugget Creek should be left for recreational users and be helicopter noise-free. Locals have traditionally used these valleys to hike, fish, boat and experience a bit of Alaska.

Helicopters departures should be from the airport only. I do not support alternative heliports. The North Douglas heliport should be phased out and eventually moved to the Juneau International Airport. North Douglas is not compatible with helicopters; it's a residential neighborhood, and, if an accident were to occur, fire and rescue efforts would take longer to respond than at an airport location.

The hours for commercial helicopter activity should be controlled. Operations should coincide with the normal local workday hours. Tours outside of the normal hours are those that impact most of the locals. Weekends and holidays, are those times when most locals recreate in the outdoors. Commercialization of our local mountains by helicopters should be limited to traditional workdays.

Access paths to the mountains should vary so that people in the Mendenhall Valley are not required to hear the drone of helicopters all day long. Those hikers who venture in the commercially used valleys should also be spared from the constant daylong drone. Varying the routes and landing sites during the day in commercially used valleys will reduce the impact on other users.

The use of incentives given to carriers that use quiet technology should be encouraged. Carriers using the new technology should receive preferences on fees and departures. Reduces or eliminates the noise of these machines and many issues will be resolved.

The proposal that develops a borough-wide management plan seems like a good direction to pursue. This plan, as proposed, would be legally binding for the CBI, federal, and state agencies and would include flight-free zones, altitude limits, curfew, phase-in of quieter technology, and restore natural quiet specified areas. I support this wholeheartedly.

Finally, the safety of passengers and ground dwellers should be evaluated. With an increase in airport traffic, a reduced number of flights may be justified to keep collisions from occurring. Flying in marginal weather should be evaluated not by the carriers alone, but also by a third party who has no financial incentive. Marginal conditions not only decrease safety but also decrease the altitude thereby increasing the noise impact.

The only proposed plan I find acceptable by itself is the B-alternative. The others are not acceptable due to the number of flights they allow, the flight paths, and landing sites as proposed. Reducing the impact of commercial use of the icefield is important to me.

In conclusion, my family of four has lived and used many of these valleys leading up to and on the icefield. We have mountaineered, boated, skied, camped, and just taken strolls into these now commercially used areas. My impression of the commercial helicopter use in the Juneau area has been negative. The helicopters are reminiscent of mosquitoes in the summer except that they don't go away with bug spray. In 1981, when I moved to Juneau I could go to the Mendenhall Glacier and recreate without the impact of helicopters. I realize that times change, but I would like to see control and limits be established so that growth of tourism and traditional recreation uses may be compatible. This is not a new issue; other areas in the country have had these problems too. In Juneau an easy solution should be found where all users win.

Pete Hestings

Pete Hestings

9585 Whiteview Court

Juneau, Alaska 99801

"DOROTHY OWEN"
<dorothy.owen@acsa1
aska.net>

To: <ehall@twenc.com>
cc:
Subject: Helicopter noise comments

07/25/01 01:23 PM



- PO 1 | 1. The last five years the noise has steadily got worse, if
you are outside, you cannot hear another person talk.
- PO 2 | 2. Every time I hear and see a helicopter go over the
mountain behind the trailer court the mountain goats
run the other way.
- PO 3 | 3. They seem to fly in all kinds of weather, when the clouds
are so low that you can't see the mountain or the glacier
east of me.
- PO 4 | 4. I can't believe that this don't bother the eagles, ravens
and all the wild creatures on the ground, plus all the
air turbulence.
- PO 4 | 5. I think they should cut back to 1994 level, I therefore
support **ALTERNATIVE B 2-2**

Thank you,

Patrick Owen
Long time resident

PO

PAULETTE SIMPSON
402 ALASKA BELL COURT
DOUGLAS, ALASKA 99824
PHONE (907) 364-3179
FAX (907) 364-2851
EMAIL: simpson@pdutka.net

RECEIVED
JUL 25 2001

PS

August 3, 2001

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Re: DEIS - Helicopter Landing Tours on the Juneau Icefield - 2002-2006

Dear Ms. Hall:

As a twenty-five year resident of Southeast Alaska, I support Juneau's helicopter operators in their desire to provide continued access to the Tongass National Forest's Juneau Icefield and recommend that the District Ranger select Alternative "F" in the DEIS. This alternative would provide continued access to the Icefield and allow for a very small percentage of expansion for businesses that operate less than half the year. Clearly, Alternative "F" most fully supports the mission of the United States Forest Service to manage the nation's resources to provide social, economic and environmental benefits for our citizens.

• The Tongass National Forest, and specifically the Juneau Icefield, is land held in common by every resident of the United States. Every year, thousands of Americans make a special point of visiting Juneau for the specific purpose of experiencing - just once - the grandeur of these magnificent national treasures. Helicopter tours allow people of all ages and levels of physical ability the opportunity to view and touch a real glacier and experience "...the magnificent and restorative virtues of our forests..." The DEIS makes a point of citing Crystal Cruises' top ten shore excursions as an example of the unparalleled popularity of these attractions worldwide. While the Juneau Icefield should be protected, it should also be shared, not hoarded.

• The U.S. Forest Service vision statement for the 21st century, "Caring for the Land and Serving People" clearly states that "National forest lands are integral parts of the economic and social fabric of nearby communities which, in turn, often depend on public land for their livelihood." It is an indisputable fact that helicopter flightseeing in Juneau provides "benefits for people" by employing hundreds of local residents and contributing substantial revenues to local government. And it does this without extracting any minerals, cutting a single tree or scarring the landscape in any way.

• Finally, air tours are the most ecologically safe way to view and appreciate the Juneau Icefield with little or no impact to the resource. The DEIS does not mention negative impacts to the

PS-1

PS-2

PS-3

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Icefield from flightseeing; presumably, none have been identified. It should also be noted that environmental education and stewardship are key components of icefield tours.

The DEIS cites anecdotal evidence of opposition to helicopter flightseeing. A disproportionate amount of negative language focuses on the noise "impacts" of flightseeing but ignores the fact that just last fall, Juneau voters rejected a proposal of the "Peace and Quiet Coalition" to limit flightseeing operations in Juneau. In fact, voters overwhelmingly (88% - 32%) rejected some of the very same limitations that the DEIS mandates in Alternatives B, C, D & E. The single, recent, statistically valid "poll" on community sentiment concerning flightseeing was this 2000 municipal election. If public opinion is indeed a critical element of the USFS decision-making process, Alternatives B, C, D & E should be eliminated from serious consideration.

While noise is an issue for some people, I know from personal experience that many of the complaints are grossly exaggerated. I also believe that some who cite "noise" as a reason to limit flightseeing have as their primary objective a desire to curtail cruise ship visits to Juneau - which clearly is not within the power of the USFS to control.

It should finally be noted that Juneau's helicopter operators have invested a tremendous amount of time and resources in adapting their operations to address community concerns. They are actively pursuing "quiet technology" and I am confident that they are sincere in their desire to be good neighbors while they serve visitors from around the country and around the world.

Thank you for considering my comments.

Sincerely,

Paulette Simpson

Paulette Simpson
402 Alaska Belle Court
Douglas, AK 99824
(907) 364-3179
e-mail: pauletem@gdi.net

RB

RECEIVED

To: ehall@twenc.com, pgriffin@fed.us
cc: <exhibits@gdi.net>
Subject: Heliotour DEIS
09/13/01 05:45 PM



9.9.01

Ellen Hall
Foster Wheeler Environmental Corp.
12100 NE 195th Street
Suite 200
Bothell, WA 98011

RE: DEIS; Helicopter Landing Tours on the Juneau Icefield

Ms. Hall

RG-1 I would like to go on record in support of Alternative B of the DEIS for helicopter tour landings on the Juneau Icefield.

RG-2 As with any natural resource, there is a limit to the amount of activity an area can accommodate without impact. I have watched the Icefield Tour helicopter traffic increase over the last twenty years to the current level and find the concept of additional landings unacceptable.

RG-3 Significant issues supporting my choice of Alternative B are as follows:

1. Noise impact on residents
2. Noise impact on recreationists
3. Impacts on the currently light use or unused areas.

RG-4 There are a large number of tourist industries that rely on the Tongass and associated waterways for their businesses. There needs to exist a more equitable assignment of asset use allocation than that being proposed by action B.

RG-5 I advocate implementation of a more ambitious "Limited Entry" program to regulate the Helio-Tours and other commercial users of the Tongass. Residents, visitors and industry are bound to the principles of limited entry already in; Pack Creek, Glacier Bay, the Fishing industry and both

Sport fishing and hunting, to name a few. This system works and serves to enhance the user's experience of the area as well as lessen the impact on an area due to overuse.

Regards.

R. Banghart
PO Box 241023
Douglas, AK 99824
907-586-2187

cc
pgriffin

RC
RECEIVED
RETURNED

To: <ehall@twenc.com>
cc: <rickallencook@gcd.net>
Subject: FW: Another opinion: DBIS comments (helicopter icefield landings)

09/22/01 12:31 PM



Sincerely,

Richard J. Cook DDS
Rotary District 5010
Scholarship Committee Russian Co-Chair
712 West 12th Street
Juneau, AK 99801
rickallencook@gcd.net
Phone (907) 463-3623
Office (907) 586-1188
Fax (907) 586-4408

-----Original Message-----
From: Richard J. Cook DDS [mailto:rickallencook@gcd.net]
Sent: Saturday, September 22, 2001 10:30 AM
To: pgriffin@fed.us
Cc: Larri Spengler; Ellen Cook
Subject: Another opinion: DBIS comments (helicopter icefield landings)

Dear Mr. Griffin,

I am a resident of the Thane region and we have lived here for approximately 13 years. The views expressed by Larri Spengler below do NOT represent me and my wife and my son who also live here. I have recently expressed an opposing view to Mr. Spengler and we had our opinion blown off as if we were ignorant children. If one were to talk to individuals here one on one you would find that there are others who are not part of the BANANAS (Build Absolutely Nothing Anywhere Near Anything) mentality that pervades the most vocal residents in Thane who claim to represent everyone, but in fact do not. Most people who differ from the louder voices on Thane just do not want to get in a prolonged argument nor be blacklisted with friends and neighbors whom you like and care for, but those friends seem to be slipping a bit off the deep end with BANANA mentality. I would not even write this letter except make sure you understand that the claim of universal support here is simply not true.

1. We believe that the tourist industry has been very considerate and conscientious about caring for our resources. They are careful to remove all of their garbage and they also remove the garbage left behind by Juneau's local residents. They are in fact very good stewards of our resources.
2. All four of our children have at one time or another earned money for college while working for some aspect of the tourist industry, including cruiseships, hiking, airlines and helicopter companies. These were a God-send to them.
3. The helicopter tourist industry provides extremely valuable opportunities

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- for the youth of our community for jobs and education.
4. The noise levels, so far have never been a problem to me or my family. Of course we hear the helicopters, the planes, the automobiles, the motorized parachutes, the airboats, the cruise ships, the small fishing boats, the barges...fog horns and just about anything else you can think of. The summers are wonderfully exciting. The winters are very quiet. That is the season. By the time spring rolls around we really look forward to the excitement of another tourist season.
5. A reasonable increase in landings can well be accommodated with prudent planning. There is an icefield up there as big as the state of Connecticut. There is lots of room.
6. Helicopter landings provide a wilderness experience of Alaska for thousands of people who would never, ever be able to experience it any other way. Many people have told me that their icefield helicopter trip was the greatest experience of their life. This is one of the greatest things we can sell to anyone and they leave only footprints in the snow. They are clean.

Sincerely,

Rick Cook

-----Original Message-----
From: Larri Spengler [mailto:lspengler@ak.net]
Sent: Saturday, September 22, 2001 9:22 AM
To: pgriffin@fed.us; ehall@twenc.com
Subject: DBIS comments (helicopter icefield landings)

Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041 pgriffin@fed.us
Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011 ehall@fwenc.com

September 21, 2001

RE: Helicopter Landing Tours on the Juneau Icefield 2001 DBIS

Greetings:

At its September 16, 2001, meeting, the Thane Neighborhood Association discussed the July 2001 draft environmental impact statement prepared by the Forest Service regarding helicopter landings on the Juneau Icefield. We have the following comments.

Thane supports and welcomes tourism in Juneau. However, many of our members have been concerned about the level of noise associated with flight seeing in our community, of which the helicopter tours are one component. It is the responsibility of government to make sure that the impacts that accompany permitted activities are not unreasonably detrimental.

There already is a serious problem with flight seeing noise in Juneau, and

the members attending our meeting felt it is unwise to increase that problem by increasing permitted landings. No one at the meeting spoke in favor of an increase.

Fifteen individuals, two thirds of those present, voted to favor the approximately 30% reduction from the 1999 actual level, as set out in Alternative B. The remaining eight members attending expressed the opinion that the 1999 actual level should be rolled over for one more year, so that the flaws in the draft EIS can be remedied, and a thorough analysis can be completed at that point.

No one present supported any increase from the 1999 actual level. Further, no one who was unable to attend communicated that preference, after receiving a notice about the meeting that clearly spelled out the options.

Our association believes the draft EIS is inadequate for a number of reasons.

A primary deficiency we discussed is the failure to consider problems caused by current levels of flight seeing. There is simply an unacceptable amount of aircraft noise throughout our community. This affects peoples' lives in many ways, and is especially troublesome when it invades Juneau residents' homes and the sites of formerly peaceful recreation. There is also concern about other impacts of the noise, such as the potential for a decline in property values. Ways of addressing this issue, such as altered flight paths and quiet technology, are simply inadequately analyzed by the draft.

Another inadequacy we discussed is the lack of a logical and evidentiary basis for the alternatives which would consider increases of 14%, 45%, and even 83% over the actual 1999 level. Since the existing permit level has not been reached, such dramatic theoretical increases seem unfounded.

A third area we discussed in which the draft EIS deficient was in the realm of safety. A number of tourism accidents in recent years have involved helicopters, and an increase in permits would seem to increase the chance for such tragedies. That should be evaluated as part of the EIS.

We encourage the Forest Service to address the helicopter noise problem directly, and cumulatively with other flight seeing noise. Only when the overall noise level has been reduced should an increase in permitted helicopter landings even be considered.

Given the extent of deep citizen concern on this issue, it is not acceptable for the Forest Service to avoid considering the impacts the current levels of helicopter landings are having. Clearly, the helicopters heading for the icefield are one part of this community problem, and it is disingenuous for the Forest Service to disavow responsibility for looking at that.

Sincerely,

Larri Irene Spengler
President, Thane Neighborhood Association

cc:
Thane Neighborhood Association members
Juneau Assembly Members

RES

RECEIVED

REShaub@aol.com To: ehall@fwenc.com
09/02/01 02:55 PM cc:
EDT Subject: DEIS Juneau Icefield 2001



It is my opinion that alternative F is the preferred alternative for helicopter landings on the Juneau Icefield. This alternative allows for reasonable growth of an important part of the summer tour industry. I believe that economics and logistics will check growth of this segment of flightseeing naturally.

I am strongly opposed to any alternative that includes day restrictions of helicopter (or fixed wing) flightseeing and glacier landings. The helicopter and fixed wing companies have done a good job in mitigating noise in the Juneau area. As much as some people would like to think otherwise, Juneau is an urban area and comes with noises and distractions that accompany urban areas.

Russell Shaub

RES
1RES
2



"Ron Flint"
 <ron@wuggetoutfitter.com>
 To: <ehall@twenc.com>
 cc:
 Subject: Icefield landings
 09/28/01 10:21 AM

RF
 1
 RECEIVED
 10-7-2001

Dear Ms. Hall,
 I am writing you in support of alternative "P" of the Juneau Icefield helicopter landings alternatives, or whatever it's called.
 I've lived in Juneau all my life. This is one of the most beautiful places on earth and the Juneau icefield is one of the most unique places anyone will ever visit. I'd like to share it with them.

Regards, Ron Flint

P.S. I am a local businessman, but, the visitor industry is not my bread and butter.



ROBERT A. GANEM
 <rganem@juno.com>
 To: ehall@twenc.com
 cc:
 Subject: CLOSURE OF ICEFIELDS
 08/29/01 10:14 AM
 MST

RG
 RECEIVED
 10-7-2001

TO WHOM IT MAY CONCERN:

I AM WRITING TO YOU TODAY TO EXPRESS MY FEELINGS IN REGARDS TO A CLOSURE THAT IS BEING LOOKED AT REGARDING ALASKA. MY FAMILY WERE ON VACATION IN MAY OF THIS YEAR ON AN ALASKAN CRUISE. DURING THAT TRIP WE TOOK A HELICOPTER RIDE AND LANDED ON ONE OF THE GLACIERS. WE LANDED ON ONE VERY SMALL CORNER. THE GUIDES EXPLAINED THAT WE WERE ONLY ALLOWED TO WALK IN A VERY SMALL AREA. WE COULD NOT TAKE ANYTHING FROM THERE NOT THAT THERE WAS ANYTHING TO TAKE BESIDES A PIECE OF ICE. IT WAS THE HIGHLIGHT OF OUR TRIP AND A ONCE IN A LIFE TIME EXPERIENCE. I WAS SO IMPRESSED PERSONALLY AT HOW CONSCIENTIOUS THE PILOT WAS REGARDING THE ENVIRONMENT.

I BELIEVE THE ICE FIELDS SHOULD BE FOR ALL CITIZENS AND WOULD ASK THAT YOU PLEASE DO NOT TAKE THAT OPPORTUNITY AWAY FROM US. MOST OF THESE AREAS ARE COMPLETELY UNSEABLE AND UNREACHABLE EXCEPT BY A HELICOPTER. THEY ARE ALREADY SO REMOTE AND SO PROTECTED BECAUSE OF THEIR LIMITED ACCESS. I CAN'T SEE HOW ANY DAMAGE CAN BE DONE BY LANDING ON THEM AS THE HELICOPTER COMPANY WE WENT WITH.

PLEASE CONTINUE TO ALLOW HELICOPTERS TO BRING PEOPLE TO THE GLACIERS!

SINCERELY,
 ROBERT A. GANEM

RG
 1



Rob Lyle
<rlyle@oz.net>

To: ehall@fwenc.com

cc:

Subject: Juneau Icefield Helicopters

08/15/01 12:07 AM
MST

Please respond to
rlyle

RL

To the Attention of Ellen Hall & U.S. Forest Service:

The next to the last week of July, 2001, found my family winging its way to the Juneau Icefield via helicopter. This was something that we have longed to do for nearly ten years. In so many words it was a dream come true.

I have long been an environmentalist. And, maybe I preach a little too much to my kids about the awesomeness of Nature and how we need to respect and take care of it.

But, as we landed on the glacier, my youngest son (age 12) turned to me and said: Wow! Now I understand why you fight so hard for the environment!

We would never have been able to climb to a height at which we would have observed as much as we did from the helicopter. David's eyes were opened to beauty and majesty on a scale he had never before seen or imagined. It was an awe inspiring experience.

As I gazed around the Icefield, I saw several other helicopters and their passengers. All were moving slowly to inspect the cold terrain. The pilots seemed to be explaining the glacier as quietly and reverently as our pilot was. Ours was a very knowledgeable and pleasant young man. You could tell that he had a real love and respect for the glacier.

I can not say enough about this experience. It will live in my memory as long as I am alive. It has reinforced my love of Nature. It has spurred my family to become more involved. It has opened in us a desire to experience and protect the environment. And, we certainly feel that there was no environment damage done to the Icefield by the helicopters or the people in them.

In closing, I urge you not to limit this experience and to please continue to allow helicopters to bring people to the Juneau Icefield!

Sincerely,

Robert & Janie Lyle (David & Ana)
30452 10th Avenue South
Federal Way, WA 98003-4110 USA

August 15, 2001

RL
1

RECEIVED

SEP 21 2001

P. O. Box 20511
Juneau, Alaska 99802

Juneau Ranger
District

September 19, 2001

RECEIVED

SEP 2 2001

Juneau Ranger
District

The Regional Forester
U. S. Forest Service
P. O. box 21628
Juneau, Alaska 99802

Dear Sir:

This letter addresses the use of helicopters for sightseeing in the Tongass National Forest.

I desire zero use of helicopter flights. There is a disruption of the wildlife and human activities caused by these noisy, intrusive machines (couldn't resist the adjectives).

I'm not just saying limiting the use here (my back yard), but anywhere these machines fly for sightseeing purposes. We are already a nation of energy gluttons; I advocate a very tough limit like zero tolerance for use of these fuel hogs for such an insane purpose.

Yours very truly,

Robert L. Daniels

Robert L. Daniels

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RMa

RECEIVED

Tuesday, July 31, 2001

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 185th Street, Suite 200
Bothell, WA 98011

Dear Ms. Hall,

This letter concerns the Draft Environmental Impact Statement regarding Helicopter landings on the Juneau Icefield for the years 2002 - 2006.

I am a retired businessman who has lived in Juneau for 41 years. About 12 to 14 years ago I purchased a 160-acre homestead parcel on the East Side of Taku River directly across from the Taku Glacier. It is known as the Bullard Homestead and actually appears on some USGS maps of the area. The property was purchased to be used as a seasonal retirement home. However, I find that under existing conditions I can no longer enjoy the summers at my retirement home. This is because the noise from the helicopters up and down in front of my property is so incessant. It begins early in the morning and doesn't end until at least 8 O'clock in the evening. The intrusive noise also exists at my main residence in town, located in what is known as the Highlands. Yesterday, it got to the point that my house was actually rattling from the noise. The noise has reached a point where it is seriously disturbing to both my wife and me. I therefore strenuously object to any alternative that would increase the number of landings on the Juneau Icefield, and object just as much to what you call your proposed action, Alternative E. This alternative would essentially continue the status quo for five more years, and that is not acceptable.

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RMa
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To me, the only acceptable alternative among those identified is Alternative B. Alternative B is the only Alternative (apart from the No-Action Alternative) that would actually reduce the landings from existing levels.

I am also very much concerned about the safety aspect. I own my own plane and have been a pilot for 20 years. The airplane is the means for my wife and I to travel back and forth to our homestead. Yet, given the recent growth in summertime flights, both helicopter and fixed wing, what may be termed the Taku River corridor has actually become quite crowded. I would estimate that there are times when there are 25 to 30 aircraft in flight in this corridor. And I would note that there already have been fatal accidents. I now fly at only 300 feet because I know these other aircraft are at higher altitudes. I believe that even as a matter of safety there should be a reduction in the number of permitted helicopter landings. Again, I urge you to choose Alternative B as the only alternative that would begin to balance the interests of the operators with those who are adversely affected by the noise.

Yours truly,

Ron Maas
Ron Maas
311 Grönlund Avenue
Juneau, Alaska 99801

RECEIVED

RMo

"Roman J. Motyka"
<jrjm@uas.alaska.edu>
08/30/01 03:51 PM

To: ehall@fwenc.com
cc:
Subject: Juneau Helicopter DEIS

Dear Ms. Ellen Hall:

I have a few brief comments regarding the DEIS for tour-related helicopter landings in Juneau area.

I believe helicopter landings and tours of the Juneau Icefield should be frozen at their current level and then should be reduced by 5% per year until they are scaled back to the levels of 1995. All possible effort should be expended to reduce noise and traffic over populated areas.

I am not in favor of constructing new heliports at this time.

Thank you,

Roman J. Motyka
835 Dixon Street
Juneau, AK 99801
907-586-1291

- jrjm.vcf

RECEIVED

R. Mike Rawson
14040 N. Douglas Hwy.
Juneau, AK 99801

RMR

October 1, 2001

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Dear Ms. Hall:

1 Please consider my comments on the Draft EIS: Helicopter Landing Tours on the Juneau Icefield 2002-2006, and consider my support for a moderate increase in helicopter landings.

2 I would like to emphasize the fact that the United States Forest Service has the jurisdiction to control the commercial landing tours on the Juneau Icefield, not helicopter flight activities and the non-landing aspects of the tours. Many other governmental agencies are also responsible for the glacier flightseeing tours, and it is my opinion that each should be given the opportunity to set standards in their area of expertise. An example is the City and Borough of Juneau finally taking an interest in mitigating the noise concerns of some Juneau residents. I hope they can continue their process in a constructive manner.

3 I am also pleased that the US Forest Service has taken an active step toward wildlife studies, in particular, the goat studies recently undertaken. There is still much to do, but according to a USFS biologist, the mountain goats living throughout the Juneau Icefield do become habituated to aircraft noise, and at worst, have maintained a steady population over the past years.

4 I support the use of more remote areas of the Juneau Icefield for helicopter landings. Many of these "remote" areas receive limited or no use. Placing further restrictions on days of operation in these new areas might have opposite the desired effect on local National Forest users who recreate a short distance from their homes as opposed to the more remote areas of the Juneau Icefield.

5 The Juneau Icefield is located in a National Forest, one that is here not only for residents of Juneau, but all residents of the United States. We do maintain remote areas (i.e. limited or no impact uses) through our National Parks and Wilderness Areas.

Thank you for the opportunity to comment on the Draft EIS.

Respectfully,



R. Mike Rawson

RP

Friday, September 21, 2001

Ms. Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

REC'D SEP 25 2001

Dear Ms. Hall,

This letter is in response to the U.S. Forest Services' draft Environmental Impact Statement regarding helicopter landing permits for the Juneau Icefield for the years 2002 through 2006. I am a resident of Thane Road in Juneau. Thane Road is a spur road that runs south from downtown Juneau and dead ends approximately six miles from town. A residential area of perhaps 200 people reside along the last 2-1/4 miles or so of the road. This area of Juneau is significantly and adversely impacted by flightseeing noise from both helicopters and fixed wing aircraft.

1 I know a couple who reside on Thane Road who are about to place their house on the market and move permanently from Juneau just because of the noise. Together, the man and wife operate a specialized computer modeling business from their home. In recent years, they have been forced out of Juneau during the summer months, because the noise from flightseeing interfered with their ability to conduct business. It prevented them from concentrating on their work and often interrupted business telephone conversations. The wife of this couple estimates that the fair market value of the house is now \$30 - \$40 thousand dollars less than it would be but for the noise.

2 I have another friend who lives close to downtown Juneau in what is called the Highlands area. She has lived in the same house for approximately fifty years. She was born and raised in Juneau, but now is preparing her house to sell. In her case, it is almost exclusively noise from the helicopters that has disrupted her life. There are times (more than once) when she measured helicopter noise at 80 decibels inside her house.

3 Nine miles or so north of downtown, there is a couple who also are about to sell their house and move from Juneau just because of the noise. They live on what is called the Old Glacier Highway. Their noise comes from the Temisco helicopters that take off and fly more or less directly overhead on their way to the Mendenhall Glacier and associated Icefield.

In my own case, I have waterfront property with a nice view overlooking Gastineau Channel. My house has a rather spacious deck, but I can no longer use that deck in the summer as I used to because of flightseeing noise. The noise is in fact loud enough to interfere with conversation, but worse than the decibel level is the fact that it is so incessant. It is, in fact, nearly non-stop, all day long.

4 These examples are provided because in reading the DEIS, I find that the document throughout is written in a fashion that minimizes the degree to which flightseeing noise has adversely impacted the citizens of Juneau. For example, it is not until page 18 that any mention is made of the noise problem, and there the document states that "The noise of helicopters during flights could affect the quality of life for residents. . . ." [emphasis added] As if an adverse effect on our quality of life is a mere possibility. Something that may happen, but then again it might not.

This type of rhetoric is employed throughout the document, e.g. "Flights could cause noise disturbance to ... recreation users of Forest Service ... cabins and ... trails ...". In other parts of the document, the problem is referred to as merely "annoyance."

The noise has become so much a problem that last year there was a citizen's initiative on the ballot of the municipal election which was aimed specifically at the problem of flightseeing noise. The initiative lost, but perhaps only because many voters saw it as going too far in terms of measures to reduce the nuisance. Yet, the DEIS makes no mention of the initiative, and of the seven alternative courses of action described, only one alternative, Alternative B, would actually reduce the number of landing permits.¹ Three of the alternatives, alternatives C, D, and E are variations of the status quo, while two alternatives, alternatives F and G would allow significant growth in the number of landing permits.

In mid-August of 1998 I attended a hearing in Douglas conducted by a committee of the Juneau Docks and Harbors Board. The meeting was for ERA Aviation to present its proposal to lease the "Little Rock Dump" from the City and receive public testimony. It was a memorable night. At least 70 people were present in a room which could only comfortably accommodate half that many. Most were Douglas residents but there was representation from other areas as well. Following a presentation by ERA representatives, there was testimony from about two dozen people. Not one testified in favor of the proposal. Residents of retirement age spoke of having abandoned their gardens because of the noise. Others related that they could no longer hold a conversation with a neighbor across a fence.

When people are literally forced from their homes, and when the noise problem prompts a ballot initiative to address the problem, there is something much greater going on than the term "annoyance" conveys. But the DEIS takes no account of these aspects, all of which are a matter of public record. The DEIS minimizes the true extent of the problem, and ignores most of the recent history of the problem.

Another huge shortcoming of the DEIS is that it never describes the criteria for decision-making. It takes note of the Forest Service management plan, various laws that apply to varying degrees, but there is no discussion of exactly what criteria will be used to decide the appropriate number of landing permits beginning with the year 2002. I suppose that in the broadest sense, the Forest Service must make a decision that serves the public interest, but the question is, what is the public interest?

The DEIS traces the history of the landing permits, and the growth in the number of permits, but what it fails to recognize that up until now, the helicopter operators have always received whatever number of permits they asked for. But the growth in number of flights and the attendant increase in noise has reached a point where it is clear that there has been no balancing of interests. The interests of the operators should be balanced with the interests of those of us who are adversely affected - affected to the extent that a very large portion of the residents can no longer enjoy their own property. If the task is to make a decision, which does the greatest good for the greatest number, then there is no question but that the number of landing permits should be reduced.

¹ Alternative A, the "no action" alternative is not considered a viable alternative in the sense that in this writer's opinion, it will receive virtually no serious consideration by the Forest Service.

What is involved is the profit motive of a few versus the right to a basic level of peace and quiet by hundreds of homeowners in Juneau.

In recent weeks, there have been opinions expressed in the local newspaper, some in support of the operators. Sometimes the expression of support takes the form of stating that the tourists who purchase the flightseeing tours have a "right" to view the Juneau Icefield in this manner. But I suggest that no one has a "right" to view the Icefield if they have to cross my property to get to it. And in a very real sense that is what is happening. The tourists get to see the Icefield at my expense, at the expense of my peace and quiet. Under such circumstances, I submit they have no such "right."

If a neighbor of mine began operating a chain saw more or less constantly, for twelve hours a day, there is no question that I would be successful in a nuisance action. Undoubtedly I could obtain both an injunction and damages. The only difference here is one of scale. Instead of affecting one or two or three properties, this noise affects hundreds. And, instead of one person or business making the noise, it is instead a cumulative effect of four or five or maybe a half dozen businesses. This is exactly where government should perform a role of protecting the rights and interests of all the property owners that are suffer from the activity. Yet so far, neither the Forest Service nor the local Borough Assembly has taken any action that has had any effect on the noise levels.

Another aspect of the helicopter tours and the attendant noise is that it is so pervasive. The DEIS includes maps that show the routes that are used by the several operators. The routes as shown resemble a pile of spaghetti on a plate. The routes are so varied that each and every one of the local recreational trails is affected. There is no longer even one local recreational trail that is free from the helicopter noise. The DEIS indicates that the Forest Service does not have jurisdiction regarding the routes. Perhaps not directly, but clearly the routes employed can be one of the various conditions that become part of the permits. If in fact, the permit system is to continue parceling out the Icefield (this operator for one area, and another area for another operator), then it only makes sense to control the routes to and from each of their assigned areas. In this manner, at least some areas can be protected from this scourge.

Every alternative identified in the DEIS would accommodate the industry in the extent to which the annual tourist season keeps expanding. Just because the cruise ship season has pushed the season to its limits doesn't mean that the permit system for the helicopters has to follow suit. Indeed, one of the ways to ease the suffering of the residents is to restrict the season, say from May 25 to August 31. In that manner, the suffering of the residents would be delayed at the beginning of the season, and cut short at the end.

From my perspective, Alternative B is the only alternative worthy of implementation, but even that Alternative should be not employed without some modification:

- (1) Although Alternative B would incrementally reduce the number of permits to the 1994 actual use level, there would be no immediate reduction made for the 2002 season. Table 2-2 shows that the proposed 2002 level at 17,325. This is more than the actual number of landings in any recent

RP 4
(cont.)

RP 5

RP 6

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RP 8

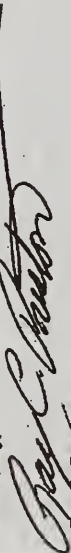
RP 9

year. There is no reason why at least a 5% reduction from, say the 2000 actual total, so that there might be a discernible benefit in the first year.

(2) There is no reason why the total length of the season should not be contracted to some degree to alleviate the suffering of the residents as noted above.

(3) The routes employed by each operator should be controlled as noted above so that at least some areas of the City and Borough of Juneau are protected from the noise.

Yours truly,



Ray C. Preston
4960 Thane Road
Juneau, Alaska 99801

P.P.
13

(encl.)



RustleW@aol.com
09/21/01 07:18 AM

To: ehall@twenc.com
cc:
Subject: Helicopter Landing Proposals

RECEIVED
RUSTLEW

RW

Ellen,

Many, many people are becoming completely fed up with the increased duration of noise levels from flightseeing aircraft in the Juneau area. People once were able to enjoy the springtime when the weather got nice, and the tours had not yet started. An increased length of the season would eliminate even that.

Our family is currently planning to leave Juneau because of this noise nuisance, although it breaks our hearts to do so. It is a wonderful community, with so many alternatives for outdoor experiences. But after waiting out the dark damp winter, there is no place we can go to get away from the flightseeing noise, and it is beginning to affect our health.

More and more people are beginning to feel this way. Please help make Juneau a better place to live for everyone, not just for the helicopter pilots, and choose alternative B.

Sincerely,

Russ White
Juneau, AK
99802-2525

RECEIVED
FEB 21 2001

From: Sally Bibb
5550 Thane Road
Juneau, AK 99801

SBI

September 27, 2001

Pete Griffin
U.S. Forest Service
Juneau Ranger District
8465 Old Dairy Road
Juneau, Alaska 99801

Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Boothell, Washington 98011

Dear Ms. Hall and Mr. Griffin:

I am writing to comment on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2001.

I was born in Juneau and have lived here for about 30 of my 40 years - most of this time on Thane Road. My husband also grew up in Juneau. This is our home and we will remain here as long as we can. I am mentioning these facts because I want you to understand our long-term commitment to Juneau and maintaining our quality of life here. It is our home and we intend to work hard to keep it a good place to live. I am not opposed to tourism in Juneau because I recognize the importance of this industry to our economy. In addition, I am proud of Southeast Alaska and I am happy when other people can enjoy one of the most wonderful places in the U.S. However, the dramatic increase in cruise ship passenger traffic to Juneau has significantly impacted us, primarily due to the traffic and congestion in downtown Juneau, along South Franklin Street and along Thane Road.

I honestly would not care how many helicopter landings you allowed on the Juneau Icefield if I did not have to deal with the transportation of tourists to and from the helicopters and the potential impact of new heliport locations on traffic, congestion, and quality of life on Thane Road. However, I am very concerned about anything that will increase the traffic from downtown Juneau to Thane Road. I believe that the current problems with the noise associated with helicopter tours to the icefield will force the relocation of the heliports and one of them will be located somewhere on Thane Road. This eventuality is an indirect result of the Forest Services' decision on the location and number of helicopter landings. Any increase in allowable landings will exacerbate this problem and increase the chance that a heliport will be located near my home. Therefore, I support Alternative C - limit icefield landings to 1999 actual use levels.

In addition, I believe that your DSEIS is deficient because it is required to consider the potential impact of increased helicopter landings on the need to develop more heliports and infrastructure in Juneau and the resulting impact on residents due to the increase in traffic and congestion - both

SBI
1

SBI
2

SBI
3

quality of life and safety issues are involved. I asked Ms. Hall whether these issues were addressed in the DSEIS and she said that they were not because these issues are "not under the purview of the Forest Service." However, I do not believe this is correct. The preparation of environmental impact statements in compliance with the National Environmental Policy Act is governed by the requirements of the President's Council on Environmental Quality (CEQ) (40 CFR parts 1500 - 1508). The CEQ regulations state that Federal agencies must consider the effects of their actions on the quality of the human environment and use all practical means to avoid or minimize any possible adverse effects of their actions upon the quality of the human environment. Effects that must be considered include direct effects, indirect effects, and cumulative impacts. Indirect effects are those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." The definition of "human environment" at 40 CFR 1508.14 states that "When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment."

The DSEIS addressed concerns about the impact of noise on people and on wildlife. However, you did not address the indirect or cumulative impacts on Juneau residents that increased helicopter landings would have in terms of infrastructure, traffic, congestion, and safety (on roads inadequate to handle the traffic associated with transporting clients). I believe that the transport of people and employees through Juneau to get to the heliports, the impact on neighborhoods and quality of life, including safety are as much of an impact of your action as is the noise of helicopters and the impact on wildlife. I hope that you will address these issues in your final EIS.

Thank you for considering my comments.

Sincerely,

Sally Bibb
Sally Bibb

5550 Thane Road
Juneau, Alaska 99801
metcalfbibb@gci.net

Pete Griffin, District Ranger
Juneau Forest Ranger District
8456 Old Dairy Road
Juneau, AK 99801

September 22, 2001
SB0

Re: Response to EIS re flightseeing permits, heliports, and ORV's

Dear Mr. Griffin:

My cover letter will be brief - but I hope you'll ready my attachments at length.

For my summary to the EIS:

1) Do not increase the number of flightseeing permits - per the 1998 McDowell survey.

Attached is the My Turn I just sent the Empire. In it I refer to the McDowell Group 1998 Community Opinion Survey wherein 81% of area-wide citizens said "no more" helicopter flightseeing.

Please make that entire 1998 McDowell report a part of your EIS survey results, and give its findings your full consideration.

I've attached pages from that 1998 McDowell Group report to make them part of my reply to you. A full copy can be obtained from the CBJ Community Development Department (or I can provide one for you upon your request).

2) Do not consider an alternate heliport site at Montana Creek without full real-life scenario sound tests with multiple helicopters flying at all flight heights on all flight paths. Don't build it if residents say "no."

I believe the proposed Montana Creek heliport site will only shift sound problems to the residents who live near and along Montana Creek Road. And it will erase the Montana Creek Trail area for the many users who walk dogs, hike, ride mountain bikes, etc along it. Both results would be unacceptable.

Don't put a heliport up Montana Creek at all; or consider it only after it's been vigorously sound-tested with groups of helicopters flying together as is done in real-world glacier tour visits - with lots of advertisement for those tests, and with full involvement of subdivision residents and their neighborhood associations to see what the affected residents think of the noise level.

Many hundreds of residents (500? 600?) live in the Montana Creek area subdivisions. What would be the real-life sound impact of multiple helicopters taking off and landing a short distance away? And how will multiple helicopters sound flying in formation only 800' - 1000' high, nearby, on the Glacier side of McGinnis, as they will on low-cloud days?

I believe that the sound test readings that have been taken for solo helicopters on optimal flying days are woefully inadequate indicators of the impact full-time daily flights would have on those of us who live in those neighborhoods. Adding no more flights is the first necessary step for residents. Not shifting all flights to a single neighborhood is another. And most important: don't even consider shifting heliports without well advertised (well ahead of time), day-long helicopter runs that would provide real-example test days for the neighborhoods that would be impacted. Fly all day and into the night as would occur if a heliport were present nearby. Fly back-side of McGinnis flights a bit; but fly all day and

Boesser, Sept 22, 2001 - response to EIS
P. 2 of 12 (including attachments)

evening on the Glacier side to show residents the impact that will befall them on the 50% or so of summer days that helicopters couldn't use the back side route. And - clarify whether on good weather days helicopters would have to fly the back route only, not circular routes. Because if, instead, they fly circular routes, then Montana Creek residents would be impacted by flight paths on their side of McGinnis even on good-weather days. In that scenario, far above 50% of the time residents would be impacted by flightseeing sound on the glacier side of McGinnis.

Again, residents need to know what tests would happen before sound tests occur. And they should have a say in things like flight paths, heights for permitted flights, no circular routes, etc. And if after all the tests many residents say "no" to a Montana Creek heliport, then it must not be built.

3) Do not put Off Road Vehicles at Dredge Lake or Montana Creek Trail areas:

The sound impact will be an unacceptable detriment to those who live nearby. And since those areas are a major use for dog walking, mountain biking, runners, bird watchers, strollers, and others, it would be dangerous to put so many pedestrians in the path of the free-wheeling ORV drivers. Part of the fun of ORVs is to take risks, go fast, be daring. That does not mesh with quiet pedestrian users who would be in the path of those vehicles.

Thank you for considering these comments.

Sincerely,

Sara Boesser

Sara Boesser
9355 View Drive
Juneau, AK 99801
907-588-0769 (w); 907-789-9804 (h)

attachments:

- Sara Boesser's My Turn / Letter to Editor sent to the Empire Sept 22, 2001.
- McDowell Group, November 1998, Juneau Tourism Community Opinion Survey prepared for the CBJ Tourism Advisory Committee. Excerpts: cover sheets and survey results. Question #11-c on page 40 says "no more" to increased flightseeing.

Letter to the Juneau Editor:

Juneau Already Said "No More"

To the Forest Service EIS question 'should there be more helicopter flightseeing in Juneau,' the Forest Service need look no further than the 1988 McDowell Group 'Community Opinion Survey' prepared for CBU's Tourism Advisory Committee.

Back then, when flightseeing numbers were lower than they are today, the survey's community-wide results were overwhelmingly against any increase.

81% of citizens surveyed said do not go over the 1988 levels. This result must be made part of the Forest Service's EIS as they consider whether or not to double - yes, double - the number of helicopter flightseeing trips allowed here.

On the radio Friday I heard that only about 50 citizens had sent written responses to the Forest Service EIS. Over a hundred postcards were received from tourists who'd enjoyed the flightseeing experience.

I just hope the careful McDowell survey of hundreds of our residents is given more attention than those hundred-plus visitor commendations.

More specifically, here are some of the results of the 1988 McDowell Group survey:

Question #11 reads: "In terms of any impact on the community, which of the following tourist activities do you feel could expand, should be maintained at current levels, or should be reduced."

*c) Helicopter flightseeing?:

Should be Reduced: 32%

Maintained at Current Level: 48%

Could expand: 13%

Don't Know/Refused: 6%

[my summary for this year's EIS: 81% said don't raise the number of flights.]

Question #13 reads, "Which area of the Borough do you live in?"

*Juneau Downtown/Thane: 13%

Douglas/West Juneau: 12%

Salmon Creek/Lemon Creek/Switzer Creek: 15%

East Mendenhall Valley: 40%

North Douglas: 6%

West Mendenhall/Brotherhood Bridge and OTR: 15%

[my summary: the 81% 'no more' respondents were from about 25% Juneau/Douglas; 55% Valley; 15% Lemon Creek. Clearly it's not just Channel residents who were at their max.]

These results - the entire McDowell report - must be a top consideration for Forest Service as it considers doubling the number of flights allowed. And for the City as it considers alternate heliport sites.

Back in 1988, we said 'no more flights' - which really meant 'no more helicopter sound.' Sound impact was already enough or too much for Valley and Channel residents alike. Any increase, be it more flights - or by shifting heliports and flight path impacts to other neighborhoods such as subdivisions near the Glacier or Montiana Creek - runs counter to our already-researched response to flightseeing sound.

In light of the 1988 McDowell survey, any area where any residents will be hit with more sound, more often, cannot be a sound solution for those of us who would have to live with the results.

Sara L. Benson

JUNEAU TOURISM Community Opinion Survey

Prepared for:

Tourism Advisory Committee
City and Borough of Juneau
155 South Seward Street
Juneau, Alaska 99801

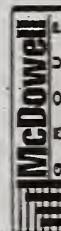
November 1998

530
5

JUNEAU TOURISM Community Opinion Survey

Prepared for:
Tourism Advisory Committee
City and Borough of Juneau
155 South Seward Street
Juneau, Alaska 99801

Prepared by:



November 1998

Juneau Tourism Survey Results 1998 Community Opinion Survey

Thank you very much for your assistance with this important project!

1. Which category best describes your age group ...	%
19 to 24 Years	5
25 to 34 Years	14
35 to 44 Years	29
45 to 54 Years	31
55 to 64 Years	11
65 years and over	9
Refused	1

Perception of Impacts on Household and Community in General

2. Considering the costs and benefits of tourism, do you feel that the current level of tourism in Juneau has a positive impact, negative impact, both negative and positive impacts, or no impact at all on your HOUSEHOLD?

Positive Impact	29	%
Negative Impact	10	
BOTH	43	
No Impact At All	16	
Don't know/not sure	1	
Refused	0	

2a. Do you feel that the costs outweigh the benefits or do the benefits outweigh the costs? (Base: those who experience both negative and positive impacts)

(Example of cost is "overcrowding downtown". Example of benefit is "economic-motley and business".)

costs outweigh benefits	32	%
benefits outweigh costs	45	
neutral	16	
Don't know/not sure	6	
Refused	1	

3. Presently, in terms of services used by visitors, do you feel the tourism industry pays
(Read choices 1 - 3)

More than its fair share (for services)	7 %
Its fair share (for services)	41
Less than its fair share (for services)	33
Don't know/not sure	19
Refused	0

4. Overall how important do you feel the economic benefits of tourism are to Juneau, Very
Important, Important, Not Very Important, or Not at all Important?

Very Important	49 %
Important	41
Not Very Important	7
Not at all Important	1
Don't know/not sure	2
Refused	0

Voluntary Compliance

5. Comparing this past summer to the summer of 1997, please state whether you noticed the following impacts were very reduced, somewhat reduced, unchanged, somewhat increased or very increased for each of the following?

a. Buses & taxis in neighborhoods?

Very Increased	5 %
Increased	28
No Change	40
Reduced	8
Very Reduced	1
Refused	18

b. Bus & taxi congestion downtown?

Very Increased	9 %
Increased	33
No Change	28
Reduced	8
Very Reduced	0
Refused	21

c. Float plane noise?

Very Increased	4 %
Increased	18
No Change	52
Reduced	6
Very Reduced	0
Refused	20

d. Helicopter noise?

Very Increased	9 %
Increased	32
No Change	39
Reduced	5
Very Reduced	0
Refused	14

e. Crowds?

Very Increased	13 %
Increased	43
No Change	29
Reduced	4
Very Reduced	0
Refused	11

f. Smoke emissions from cruise ships?

Very Increased	5 %
Increased	17
No Change	44
Reduced	10
Very Reduced	0
Refused	25

g. Cruise ship noise?

Very Increased	1 %
Increased	9
No Change	52
Reduced	7
Very Reduced	0
Refused	31

h. Guided groups of visitors on trails?

Very Increased	8 %
Increased	30
No Change	30
Reduced	1
Very Reduced	0
Refused	31

6. The Voluntary Compliance Program made recommendations to tour operators that were intended to reduce impacts on neighborhoods. Were you aware of this program?

No	63 %
Yes	48
Don't know/not sure	1

6A. How effective do you believe voluntary measures have been in managing tourism impacts?

Very Effective	6 %
Effective	35
Not Very Effective	32
Not at all Effective	6
Don't know/not sure	22

6B. Do you believe voluntary measures are worth continuing?

No	10 %
Yes	83
Don't know/not sure	5
Refused	2

7. A Tourism Hotline was established in May of 1997 to receive comments and concerns from citizens about tourism activities. Were you aware of the Hotline?

No	41 %
Yes	58
Don't know/Not sure	1

8. Would you like to see the City continue to provide the Hotline?

No	10 %
Yes	77
Don't know/not sure	11
Refused	1

Recommendations for Future Planning

9. In the future, would you like to see the number of cruise ship passengers to Juneau increase, decrease, or remain the same as this past summer (the summer that just ended 1998)?

Increase	17 %
Decrease	32
Remain the same as summer 1998	48
Don't know/not sure	1
Refused	1

10. An Independent Visitor is not off a cruise ship or part of a tour group. In the future, would you like to see the number of Independent Visitors to Juneau increase, decrease, or remain the same as this past summer (1998)?

Increase	82 %
Decrease	4
Remain the same as summer 1998	31
Don't know/not sure	1
Refused	1

11. In terms of any impact on the community, which of the following tourist activities do you feel could expand, should be maintained at current levels, or should be reduced.....

a. Downtown pedestrian traffic?

Should be Reduced	48 %
Maintained at Current Level	39
Could Expand	10
Don't Know/ Refused	4

b. Downtown bus, van and cab traffic?

Should be Reduced	51 %
Maintained at Current Level	37
Could Expand	6
Don't Know/ Refused	6

c. Helicopter flightseeing?

Should be Reduced	32 %
Maintained at Current Level	49
Could Expand	13
Don't Know/ Refused	6

d. Floatplane flightseeing?

Should be Reduced	20 %
Maintained at Current Level	59
Could Expand	13
Don't Know/ Refused	8

e. Charter fishing tours?

Should be Reduced	21 %
Maintained at Current Level	45
Could Expand	24
Don't Know/ Refused	10

f. Valley tour bus traffic?

Should be Reduced	17 %
Maintained at Current Level	56
Could Expand	18
Don't Know/ Refused	11

g. Hiking & trail excursions?
Should be Reduced 23 %
Maintained at Current Level 47
Could Expand 18
Don't Know/ Refused 12

h. Day boat tours to (Wildlife viewing Glacier Bay/Tracy Arms)?
Should be Reduced 15 %
Maintained at Current Level 50
Could Expand 29
Don't Know/ Refused 7

12. Are there other tourism activities which did not just mention that you feel could expand, should be maintained at current levels, or should be reduced.

(See Main Report For All Mentions)

13. Which area of the Borough do you live in?
Juneau Downtown/Thane 13 %
Douglas/West Juneau 12
Salmon Creek/Lemon Creek/Switzer Creek 15
East Mendenhall Valley 40
North Douglas 5
West Mendenhall Valley-Brotherhood Bridge and OTR 15

14. Which area of the Borough do you work in?
Juneau Downtown/Thane 38 %
Douglas/West Juneau 3
Salmon Creek/Lemon Creek/Switzer Creek 10
East Mendenhall Valley 19
North Douglas 0
West Mendenhall Valley-Brotherhood Bridge and OTR 9
BOROUGHWIDE 9
NOT EMPLOYED/RETIRED, ETC. 11
NOT SURE/REFUSED 0

15. What are the primary jobs in your household?
Enter # of people in household in each position

154 State, Government	27 %
48 Federal Government (military)	8
35 Local (CBL) Government (police/city employees)	7
59 Education (UAS - School District - Teachers)	10
51 Health Care (Bartlett Hospital, SEARHC, Doctors, Dentists, Nurses)	10
55 Retail Trade (clothes stores, supermarkets, etc.)	9
76 Construction/trades/crafts/printers (blue collar)	14
2 Timber harvesting and related services	0
98 Professional Services (lawyer/clergy/engineer/architect/consultant)	17
20 Fishing/fish processing	4
12 Mining industry	2
14 Communication-Utilities	2
4 Wholesale Trade	3
17 Finance, Insurance & Real Estate	1
79 Services	3
4 Self Employed	13
70 Retired	1
28 Homemaker/student	5
4 Unemployed	1
3 Refused	1

16. Have you or any members of your household been employed in Juneau's tourism industry at any time during the past year?

No 79 %
Yes 21

17. GENDER - do not ask

Male 48 %
Female 54

RECEIVED
R-10-1-01

SCML

10/1/01

Pete Griffin
Tongass District Ranger
C/O Ellen Hall
Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

Dear Mr. Griffin,

My wife and I are writing to support the recommendations presented in the Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement. We fully support the proposed satellite heliports in the Montana Creek and Dupont areas. However, the Dupont satellite heliport should be accessed by boat from downtown Juneau to minimize any impact on Thane area residents. The proposed satellite sites offer zero noise and visibility impact to households in Juneau. The choices are simple and the proposal is logical. We acknowledge that there will be added costs for the flight seeing operators working at these proposed locations but feel the benefits of peaceful coexistence with Juneau residents will outweigh any increased operational costs.

We thank you for your efforts and encourage you to move forward with any further studies required to implement satellite heliports in Juneau.

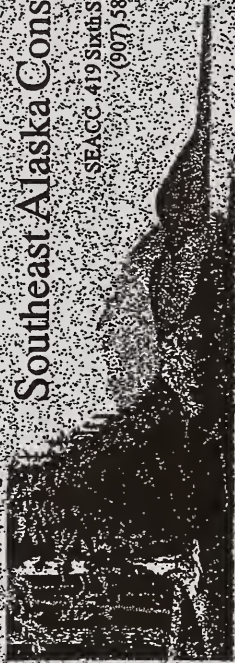
Sincerely,

Shawn P. Carey
Shawn P. Carey & Marina Lindsey
321 W. 12th St. #2
Juneau, AK 99801

Southeast Alaska Conservation Council

SEACC, 419 Sixth Street, Suite 328, Juneau, AK 99801
(907) 586-6942 phone (907) 463-3312 fax
info@seacc.org

SEACC



September 28, 2001

VIA FAX (586-8888) TO PETE.GRIFFIN & EMAIL TO EHAL@FWENC.COM

Pete Griffin, District Ranger

Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801

Ellen Hall

Foster Wheeler Environmental Corp
12100 NE 195th Street, Suite 200
Bothell, WA 98011

RE: Comments on DEIS Helicopter Landing Tours on the Juneau Icefield 2001

Dear Mr. Griffin:

The following comments are submitted by the Southeast Alaska Conservation Council (SEACC), a coalition of 18 volunteer conservation groups in 14 communities throughout Southeast Alaska from Ketchikan to Yakutat. Five of SEACC's member groups are located within the project area covered by this draft environmental impact statement (DEIS) and hundreds of individual SEACC members reside within this same area. SEACC is dedicated to safeguarding the integrity of southeast Alaska's unsurpassed natural environment while providing for balanced, sustainable use of our region's resources.

We are clearly aware of the contributions of tourism in general and the cruise ship industry in particular to the economic well-being of the residents and communities throughout the region. We have, however, expressed concerns with the impacts of this growing, large-scale industry. (See Tourism in Our Southeast Alaska Home, report by Greg Streveter, published by SEACC).

SEACC members have joined with many other residents in an attempt to constructively address the noise impacts of flightseeing. We submitted scoping comments on the Juneau Icefield helicopter tours on March 8, 1999. Additionally, SEACC staff worked closely with Sue Schrader, conservation caucus representative to the mediation process sponsored by the United States Forest Service (USFS) during the fall of 2000.

SEACC is a coalition of 18 volunteer conservation groups in 14 communities throughout Southeast Alaska from Ketchikan to Yakutat. Five of SEACC's member groups are located within the project area covered by this draft environmental impact statement (DEIS) and hundreds of individual SEACC members reside within this same area. SEACC is dedicated to safeguarding the integrity of southeast Alaska's unsurpassed natural environment while providing for balanced, sustainable use of our region's resources.

SEACC-1
The USFS plays a significant role in the Juneau flightseeing controversy by issuing special use permits for icefield landings. Consequently, we were anticipating the opportunity to review a comprehensive, well-annotated DEIS that included a thorough analysis based on sound data and addressed all relevant issues. We believe that the 2001 DEIS for helicopter landings falls far short. The remainder of this letter will outline the specific insufficiencies we have identified.

SEACC-2 Scope of the Purpose and Need

The DEIS states that the purpose and need for the Proposed Action are "to meet public demand..." (p. 1-9) for helicopter flightseeing, yet "public demand" is not defined. Evidence of demand is provided via quotations from an industry survey and press release (Crystal Cruises, 2001), hardly an unbiased source. We suggest that "public demand" for flightseeing is the product of extensive marketing by cruise lines (that reap considerable profit from flightseeing) and the flightseeing operators. Public demand, thus, is a highly-manipulated premise. It is incumbent upon the Forest Service to identify explicit criteria it intends to rely on in reaching its determination. The failure to do so prevents the public from determining whether the Forest Service provided the "hard look" it is required to provide. This DEIS violates NEPA because it fails to identify the criteria for evaluating "public demand."

SEACC-3
Although the Forest Service has wide latitude when defining the "purpose and need" for a proposal on national forest lands, this procedural discretion is restricted by the substantive requirements of the applicable land management plan. (See *Neighbors of Cuddy Mountain v. USFS*, 137 F.3d 1372, 1377 (9th Cir. 1998)(To comply with Section 1604(i) of NFMA, all actions taken by the Forest Service must comply with the requirements of the applicable land management plan). As revised, the Tongass Land Management Plan (TLMP) requires the Forest Service to demonstrate "public need" not "public demand" or, more accurately in this case, "industry demand" before authorizing these special use permits. (See TLMP 1997, p. 4-41, item 4.d(2)(d)). By focusing on "need" instead of "demand" in TLMP, the Forest Service chose to make a showing of demand for a particular activity insufficient to demonstrate the existence of a public need. This is particularly important when the proposed activities conflict with other legitimate uses of the surrounding national forest and disrupt residents' quiet enjoyment of their affected property. Clearly a "public need" is not that of an individual, a corporation, or a foreign-flagged industry, but that of the community as a whole. While market demand may indicate such a need, it is not determinative of the existence of a public need.

SEACC-4
In our view, a far more meaningful analysis would include discussions of "public need" for flightseeing and "public demand" and "public need" for quiet, nonmotorized uses of the Tongass National Forest. Considering the high levels of development throughout National Forest Lands outside Alaska and the dearth of opportunity for solitude and quiet, the Forest Service should be giving at least equal energy to addressing how to meet demand and need for quiet recreation opportunities within the project area.

SEACC-5
Because of the narrowly defined scope of the purpose and need, based upon a poorly substantiated premise and inappropriate objective, the purpose and need is unduly constrained and the only way it can be met is by the issuance of an increased numbers of permits.

SEACC-6 Inadequacy of the Data and the Analysis

SEACC-7
As discussed below, the data that are presented in the maps as well as within the text of the DEIS are disappointingly inadequate. As a result, the analysis throughout the DEIS is correspondingly inadequate: either the analysis is not done or if performed, it is based upon faulty or insufficient data. We believe that because of these inadequacies, this DEIS fails to adhere to several of the TLMP standards and guidelines for recreation and tourism. (See TLMP 1997, p. 4-41, items 4.d(2)(a)-(f)).

SEACC-8
Given the GIS capability that the USFS should have available, the maps are woefully deficient. They yield little quantitative data, serving as mere pictorial representations of approximate flight paths and landing sites. For example, even a detailed comparison of Figure 2-5, Alternative B and Figure 2-7, Alternative G reveals little difference. Yet, these 2 alternatives differ markedly in many components, none of which is reflected in the maps.

SEACC-9
No map shows the existing (current) status of flight paths, landing sites, minor development areas, etc. No map illustrates the Recreation Opportunity Spectrum (ROS) class. In particular, a map showing the ROS overlaying the LUDs would have been most useful. No map identifies the precise location of any enclaves. While it appears that all enclaves are minor development sites, are all minor development sites potential enclaves? If so, how can an enclave be proposed within the Juneau Icefield Research Program (JIRP) buffer, as shown in Figure 2-5?

SEACC-10
The DEIS assessment of helicopter tour impacts on recreationists is another example of insufficient data and inadequate analysis. The DEIS states: "The Forest Service has no quantifiable data on trail use... Estimates are based on anecdotal observations" (Table 3-1 footnote). The USFS has also failed to conduct trail surveys to gauge effects of noise on recreationists (p. 4-11). Despite the incomplete data relating to recreational use of trails, the DEIS proceeds to analyze the noise effects on recreationists for each alternative.

SEACC-11
Without this essential data, this "analysis" is of dubious value. This incomplete data, which is relevant to reasonably foreseeable significant adverse impacts, precludes us from making a reasoned choice among alternatives. Overall costs to obtain this data are not exorbitant. Per 40 C.F.R. 1502.22(a), the USFS must include sufficient data on recreationist use in this DEIS.

SEACC-12
Finally, the impacts to wildlife of helicopter flights and landings is another example of insufficient data and incomplete "analysis". In the section addressing environmental consequences (p. 4-22), the DEIS lists "operational guidelines" including:

- Maintaining a 1,500 horizontal or vertical distance from mountain goat habitat and kidding areas, mountain goats, black and brown bears, wolves, moose, trumpeter swans, and marine mammals...
- Maintaining a 0.25 mile avoidance of eagle nests
- Maintaining a 3,000 foot horizontal and vertical clearance from the sea lion haulout on Benjamin Island
- Forbidding hovering, circling, harassing or pursuing wildlife in any way.

The DEIS then states: "By adopting the guidelines outlined above, all action alternatives (except those involving Antler Glacier Lake) would have negligible effects on black bear, brown bear, gray wolf, bald eagle, Stellar sea lion, trumpeter swan, moose, or harbor seal populations." (Ibid.) General statements about "negligible" effects do not constitute a hard look under NEPA. Nor does a mere listing of "operational guidelines" qualify as the reasoned discussion of mitigation measures required by NEPA.

We object to the use of incomplete data from goat observations taken "near Juneau icefield" to conclude that bears and wolves would react similarly to goats, showing (allegedly) negligible impacts. Where are the data that specifically addresses the impacts to these various species that clearly have significantly different behavioral characteristics? Data are particularly needed in light of your admission that although goats show some habituation to noise, "...[s]ome species such as grizzly bear and black brant geese, despite frequent exposure, may never become habituated" (p. 4-21).

Especially disconcerting is the fact that earlier in the document you state: "Forest-wide standards and guidelines direct the Forest Service to provide for the protection and maintenance of trumpeter swan habitats and avoid disturbance of trumpeter swans, particularly during nesting, brood rearing, and wintering periods, to prevent abandonment of their nests, brood rearing areas, and winter habitats. As a general guideline, the Forest Plan limits development within 0.5 mile of wetlands used by nesting brood rearing, and wintering trumpeter swans [emphasis added]." (p. 3-13). How can the guidelines above be expected to have "negligible" impacts to the swans?

Furthermore, the portion of the DEIS addressing wildlife in the affected environment clearly contradicts itself. On page 3-9, the DEIS states that "All 13 of the MIS [Management Indicator Species] identified in the Forest Plan (Forest Service, 1997) occur within the project area..." but "[t]he project is not likely to affect red squirrel, marten, river otter, Sitka black-tailed deer, Vancouver Canada goose, Red-breasted sapsucker, hairy woodpecker, or brown creeper because their habitat generally does not occur near the flight routes or landing sites". The flight routes indicated on your map of the Proposed Action (Figure 2-5) most clearly do occur near the habitat of these species. Denial of the proximity of proposed flight paths to the habitat of these species is irresponsible and unacceptable. Even worse is the unsubstantiated claim that the project is unlikely to affect the Queen Charlotte Goshawk (a sensitive species) "...because its habitat generally does not occur near flight routes or landing sites." (p. 3-12)

The DEIS is devoid of information or authority to support these statements. As required by the CEQ regulations, the Forest Service must "explicitly" reference by footnote to the scientific or other sources relied upon for the conclusions in the [DEIS]." (40 C.F.R. 1502.24) Without disclosing the basis for its conclusions, the Forest Service can not satisfy the purposes of NEPA.

Perhaps the most egregious aspect of the Proposed Action (and all but the No Action alternative) is the manner in which it basically blankets all habitats along the entire shoreline and up virtually every drainage in the greater Juneau area with helicopter traffic. It is hard to imagine that any species in any habitat will be free from disturbance under the Proposed Action - including the human species as well, as there is no hiking trail accessible from the Juneau road system free from helicopter noise. Home is certainly no refuge from helicopter noise either for most Juneau residents.

The scope of the discussion of irreversible and irretrievable commitment of resources (p. 4-28) is markedly constrained. The DEIS fails completely to consider that loss of property values, loss of natural quiet, and indeterminate impacts to wildlife are resources at risk for irretrievable commitment.

Inadequacy of the Index

The index provided in the DEIS is so woefully inadequate as to be of little use. Subheadings are needed. What possible use to the reader is a heading, such as "helicopters," that is followed with a listing of over 70 different page numbers? Please direct your contractor to provide a usable index.

Inadequacy in the Range of Alternatives

Alternatives are "the heart of the environmental impact statement." (40 C.F.R. 1502.14) As such, all reasonable alternatives should be evaluated, including "reasonable alternatives not within the jurisdiction of the lead agency." (40 C.F.R. 1502.14(c)) Given the highly controversial nature of helicopter flightseeing, it is disappointing that the DEIS does not include a broader range of alternatives.

In light of many years of oft-time heated debate by Juneau residents over the problem of flightseeing noise, the DEIS should have included more than 1 out of 6 alternatives that proposes a decrease in the number of landings from the current level (excluding the No Action alternative). Eighty-one percent of residents polled in 1998 by the McDowell Group requested that helicopter flightseeing be reduced OR maintained at current (1998) levels (p. 4-4). Despite this statistically defensible finding, only one of 6 alternatives in the DEIS proposes lowering the number of landings to 1998 or lower levels!

Other Components of the DEIS in Need of Clarification

The DEIS should clearly and thoroughly discuss the legal basis for the statement "associated flight paths and altitudes, for the most part, are outside the jurisdiction of the

SEACC-19 (cont.)

"Forest Service." (p. 2-1) The jurisdiction of the USFS to mandate flight paths and altitudes as conditions of a special use permit is a critical aspect of efforts to control impacts from flightseeing. The USFS is dictating flight paths by requiring mandatory distances from wildlife, trail end buffers and 5-mile landing buffer from JRP camps. While authority for wildlife buffers can be found in other statutes, what is the authority for the USFS proposing to buffer the JRP camps from impacts of flightseeing? If the USFS is concerned that "frequent helicopter tour traffic disturbs the educational setting for the JRP students and instructors" (p. 2-28), why does the USFS not likewise buffer schools (e.g. Auke Bay and Mendenhall River Elementary Schools) and the Visitor's Center at the Mendenhall Glacier Recreation Area, where educational material is prominently displayed? This inconsistency should be addressed.

SEACC-20

One particular problem with the DEIS is the failure to clearly list and identify the "new areas north of 1995 EIS area" proposed for new landing sites in alternatives D, E, F and G. Another problem is the extremely vague descriptions of what will be allowed at these sites. Allowing 6 people to Nordic ski for an hour is significantly different than allowing a larger group on multi-day trips to tour on snow machines. It is not possible to make a reasonable assessment of environmental impacts when these locations and activities are not clearly defined. As a minimum, the number of people, duration of stay, areas of allowed travel, mode of travel, additional equipment required (skis, dogs and sleds, snow machines, tents, cabins, toilet accommodations, garbage requirements, etc) must be precisely delineated before any intelligent assessment of impacts can be undertaken.

SEACC-21

Recommendations

SEACC-21

Firstly, SEACC suggests the USFS issue a supplemental DEIS following correction of the deficiencies in data and analysis, including those deficiencies discussed above. 40 C.F.R. 1502.9 requires that "[i]f a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." Misleading analyses and inappropriate conclusions based on insufficient (or absent) data must be replaced by meaningful analysis based on sound data. The release by the City and Borough of Juneau of the final report: "Alternative Heliport Site Analysis" on September 24, 2001, provides the USFS an additional rationale to issue a supplemental DEIS (SDEIS).

SEACC-22

In both the maps and the text of the DEIS, inadequate data is given for the current condition and for each of the alternatives for the following: actual number of landings per day, number of flights on any given flight path, number of landings at any given landing site, number of enclaves and their locations, flight paths used in good weather vs. poor weather, tour type as it relates to flight path and landing site, identification of which helicopter company is using which flight path and landing site and conducting which type of tours, typical altitudes achieved along the flight paths, etc. Without this data - and data for the year 2000 season should be provided - meaningful comparison among the alternatives is markedly compromised.

SEACC-23

We recommend the SDEIS include a proposal for a monitoring/audit/verification program for flight paths, maintenance of buffer requirements, number of landings at specific sites, etc. Such a program would provide the data necessary for future informed decision making and alleviate reliance on anecdotal reports and casual observations. Additionally, this program would help to ensure compliance with mitigating requirements of the special use permits.

SEACC-24

SEACC does endorse the Citizens Alternative as proposed by Ms. Karla Hart. In particular, we support the prohibition of expansion into new areas, especially Berners Bay. Limiting the number of days per week available for flightseeing, capping maximum number of landings to 1994 levels, and setting a maximum number of landings per day are, in our view, reasonable requests that have been supported by many Juneau residents.

Thank you for this opportunity to comment upon the DEIS. We look forward to reviewing a SDEIS.

Sincerely,

Susan E. Schrader

Susan E. Schrader
Executive Committee Member
SEACC Board of Directors

OCT-08-01 13:45 FROM: JRD
FROM: SU

FAX NO. : 907-586-2470
ID: 9976880000
OCT. 01 2001 02:44PM PT

PAGE 8/8

SEW

RECEIVED
OCT 01 2001

Stephen Emerson Wright
5670 Thane Road, Juneau, Alaska 99801
Phone: (907) 586-2470 Fax: (907) 586-2469
E-mail: wright5984@gci.net

October 1, 2001

Pete Griffin, District Ranger
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801

RE: Comments on DEIS Helicopter Landing Tours on the Juneau Icefield 2001

Dear Mr. Griffin:


I offer the following comments on the Forest Service Draft Environmental Impact Statement (DEIS) for Helicopter Landing Tours on the Juneau Icefield 2002-2006.

I believe the Forest Service should issue a Supplemental DEIS that includes a more thorough analysis of helicopter noise impacts to wildlife and outdoor recreationists using local trails, as well as public need for helicopter firefighting versus public need for quiet, nonmotorized uses of the Tongass National Forest. The current DEIS appears deficient in these respects.

In light of a 1998 McDowell Group poll that indicated eighty-one (81) percent of local residents polled favor helicopter firefighting be reduced or maintained at current levels, it is noteworthy that only one of six alternatives in the DEIS proposes lowering the number over 1999 actual use levels.

If the Forest Service is unwilling to provide additional alternatives in a Supplemental DEIS that would either reduce or maintain helicopter landings at current levels, then I ask that the District Ranger adopt Citizens Alternative B which reduces icefield landings nine (9) percent annually from 1999 authorized to 1994 actual use levels, with time and day restrictions.

I support reasonable expansion of the local tour industry and believe helicopter tours provide important opportunities for aerial firefighting as well as jobs and revenue for the local economy. However, I also believe other forms of commercial tourism attractions (in particular those which are quiet non-motorized and have less impacts to the community in terms of noise and non-renewable energy consumption) should be included in a Supplemental DEIS.

Sincerely,

Stephen E. Wright

SHF

RECEIVED
OCT 01 2001

To: "Ellen Hall" <ehall@fwenc.com>
cc: trekking@ptlaska.net
Subject: Response to DEIS

"helt poppinga"
<poppinga@earthlink.net>
09/22/01 01:41 PM
Please respond to
poppinga



To Whom it may concern,
We recently returned to Florida from a vacation in Alaska. During our vacation we were fortunate to take a tour to the Mendenhall Glacier with NorthStar Trekking. This trip was spectacular and thrilling as well as extremely educational. The personnel of NorthStar were very knowledgeable about the glacier as well as the surrounding areas. They expressed to us their concern for the preservation of the area, glacier, and wildlife. Their conscientiousness was very evident to us both during our initial prep session as well as the flight and landing on the glacier. This company is extremely concerned about protecting the area for future generations to enjoy. We consider our glacier experience with NorthStar to be the highlight of our vacation. We have also recommended them to friends who are planning a visit to your beautiful state. This is not only due to their expertise but because of their dedication to our environment. We think that they set the example for the other companies that we researched and observed. Sincerely, Stacey & Helt Poppinga, 2672 Post St. Jacksonville, FL 32204
Please continue to allow NorthStar Trekking to thrill and educate visitors about the land and environment as they have us!

--- poppinga@earthlink.net

--- EarthLink: It's your internet.

My Comments

SMcP-I (cont.)

been a positive influence as an employer + community supporter.

local

Supporter.



Scott & Denise
McPherson
<denascott@alaska.net>

To: ehall@twenc.com

cc:

Subject: Helicopter landings on Juneau Icefield

09/30/01 10:40 PM

SMcP
RECEIVED
11/2/01

I would like to see the number of helicopter landings on the Juneau Icefield capped at the calendar year 2001 landings. Enough is enough. We have enough helicopter landings already, as do several other SE Alaska communities. Helicopters serve many purposes, many very good ones and I support those. These machines are essential in survey flights for fish and wildlife, search and rescue, construction and personnel transfers. They are not essential for icefield tours, though I do not begrudge a reasonable number of those per year on the Juneau Icefield. We are, however, already above what I consider a reasonable number.

I do not support increases in helicopter landings on the Juneau Icefield, for eco tours, because of the increased noise, safety problems and effects on the quality of lives of those who live and visit Juneau, Skagway and Haines.

Sincerely,

Scott McPherson
P.O. Box 240911
Douglas, AK 99824
email: denascott@alaska.net

SMcP-I



"Susan Super"
<super@qcd.net>
10/01/01 05:38 PM

To: <ehall@fwanc.com>
cc:
Subject: Comment on the Draft EIS Helicopter Landing Tours on the Juneau Icefield 2002-2006

55

RECEIVED
10/1/01

These are my comments on the Draft EIS on Helicopter Landing Tours on the Juneau Icefield 2002-2006.

I agree with the statement on page 2-33 that commercial helicopter flights operate for too many hours each day, for too many days each week, there are too many flights in total and too many helicopters flying together. They fly too low and do not abide by minimum altitude guidelines. Just going to Fred Meyers, Thunderbird Terrace, Don Abels, and other places bordering the helicopter flight paths - and being subjected to those helicopters screaming overhead - is like living in "Apocalypse Now". Nor do residents have any peace and quiet in their own homes.

It is extremely stressful to be continually bombarded by these excessively loud, low-frequency sounds day in and day out, from early in the morning, to quite late in the evening. So, I advocate any of the alternative scenarios which eliminate this noise completely from any business or residential area.

Unfortunately the Forest Service alternatives do not take into account the reasonably expected impact of denial of landings upon the surrounding areas. The EIS is flawed because it does not take into account a broader range of potential options and impacts. Option A (no landings) would be my preference, except that the EIS does not address the potential impact resulting from airborne viewing of Forest Service controlled land.

Thank you for the opportunity to comment.

SS 1

SS 2

SS 3

REC'D SEP 25 2001

ST

COMMENT FORM

Helicopter Landing Tours on the Juneau Icefield 2002-2006 Draft Environmental Impact Statement

September 6, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name Susan Tamar
Address 2504 Meadow Lane
City, State, Zip Juneau, AK 99801
e-mail address SusanTamar@aol.com

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☐ No

Comments Category

My comments relate to (check any that apply):

- The EIS Process ☐
The Alternatives ☐
Alternative A ☐
Alternative B ☐
Alternative C ☐
Alternative D ☐
Alternative E ☐
Alternative F ☐
Alternative G ☐
Significant Issues ☐
Noise Impacts to Residents ☐
Noise Impacts to Recreationists ☐
Impacts to Wildlife ☐
Impacts in New Areas ☐
Economic Uses ☐

My Comments

As years have come and gone in our beautiful city of Juneau we have developed more and more advanced ways of seeing the beauty of Alaska. As flightseeing is rapidly growing many locals feel the rapid growth is damaging our environment. Yet a large portion of the population of Juneau is supportive of flightseeing in Juneau.

Over...

ST 1

My Comments

Having lived in Juneau since 1986 in the Meadbrook Valley, I have seen the impact of flightseeing on our environment. Being a local and realizing that tourism is the second largest industry in Juneau, it really disappointed me that some folks want to get rid of all flightseeing. Do they not realize that flightseeing is one of the best ways to see the beauty of Juneau? And I still would love to hear an explanation on how helicopter damage glaciers. Not to mention the sound of air planes and helicopters damages or hurts any habitat in any way.

I believe people need to experience the beauty of glacial landing tour before they try to ban glacial landings. Also it only me more curious if we had tourism year round how much more would people complain. These months out of the year is not that bad.

People that are not supporters of glacial landings just ask one tourist if it was worth their money and if they will remember the experience for the rest of their life.

After looking over all the alternatives I am in strong favor of Alternative F. Working in the tourism business I see the faces of tourists after they return from a flight and it only encourages me more to be supportive of increasing glacial landings.

Tourism has brought many tourists the opportunity to view our beautiful Juneau Icefield and enjoy a true package they will never forget.

As I close my reflections on Juneau Icefield glacial landings I only have one request and that would be the decision makers of glacial landings would take a serious consideration of increasing glacial landings on the Juneau Icefield.

I thank you for giving the public an opportunity to reflect on this important issue.

ST 2

ST 3

ST 4

SW

RECEIVED
10-7-01

September 24, 2001

Ellen Hall

Foster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011

I submit the following comments regarding the Draft EIS on helicopter Landing Tours on the Juneau Icefield, 2001.

A. My first choice is Option B. I also urge that all support/supply flights be included in the day/hours defined in that option. My reasons follow.

1. Resident Impact. Your Draft EIS does not adequately address the impact on residents. At the present levels, residents cannot escape helicopter noise anywhere - not at our homes, on the trails, on the beaches, or out on the water. There is no escape from the constant roar. On a normal day, at my home above Twin Lakes, I rarely get even 5 minutes without overflights. Yet my home is not on any designated (by the operators) flight path, not even a bad weather flight path. (ERA's Chief Pilot told me that the published "bad weather routes" are meaningless and not necessarily where they fly.) On high ceiling or clear days, they still fly over my house when they are supposed to be back over Blackberry Ridge. This is but one example of how their "Fly Friendly" policy is a total farce. It takes constant phone calls to ERA to keep them flying over the Channel, which is supposed to be their flight path, instead of swinging wide and high and coming in over the end of Blackberry Street. When they do this, conversation must cease.

But it is not just the level of noise, but the duration and continuous nature of the noise that impacts us so severely. They generally fly in 4 or 6 packs, low over our homes, followed a few minutes later by another, and another. One of the Baker & Associates staff who was monitoring the noise meter in my yard last summer noted that it sounded like a war zone in my yard.

2. Impact on Other Visitors. Flightseeing noise impacts other visitors to the area. As a Juneau Convention & Visitors Bureau (JCVB) volunteer, I talk to large numbers of independent travelers and visitors on the small ships, as well as cruise passengers. I have heard frequent comments during the last 2 years about the constant noise. The comments range from "How can you stand it?" to "Doesn't it bother you?" to "I was hiking on E Glacier trail and it sounded like a war zone." One visitor (after a line of 10 helicopters flew low over us on Sandy Beach at 8:30 one morning) said she'd looked forward to finally coming to Juneau (on her 3rd 2 month trip to Alaska) but wouldn't return because of the constant roar.

The impact seems to be greatest on independent travelers.

SW 1

SW 2

SW 3

SW 3
(cont)

Visitors come to Alaska and Juneau for the peace and quiet of our natural wonders, not to be subjected to a war zone atmosphere of aircraft. We have an obligation to provide a quality experience for all visitors, not to cater only to wealthy cruise passengers.

SW 4

3. Tour Operator Arguments/Myths. The helicopter operators argue that this is a national forest so everyone has a right to be there. This is not true. Activities in our national forest are a privilege, not a right. Just as visitors in the Mendenhall Campground are regulated and limited, as is the amount of timber harvested or minerals extracted, so must the number of landings on the icefield be regulated and limited. Just because marketing by the cruise lines and the operators has created a demand doesn't mean the USFS has to meet that manufactured demand. (Note: If operators move to quieter technology, which happens to have a greater passenger capacity, they will be carrying more people for the same number of landings.) It's also unfortunate that cruise passengers, who have been presold these flights long before arriving in Juneau, lose most of their investment if they chose not to fly for safety (weather) reasons. I have had many visitors come to my visitor information site and ask if they will see anything on their helicopter flight because the clouds are sitting at tree level. (Unfortunately, as a representative of JCVB, I cannot tell them that there is no way I'd get in a helicopter in those conditions if I wanted to stay alive.)

SW 6

Another myth by the operators is "We've worked hard to develop fly friendly routes and respond to complaints." As noted earlier, their "fly friendly" routes are a farce. They fly where they want, within reason. They fly at very low elevations over residential neighborhoods when weather does not warrant it. A typical response to a complaint to the tourism hotline is "It wasn't us". For example, when a line of 10 red and white helicopters flew very low over Sandy Beach at 8:30 on a particular morning, the response from the 2 companies with red and white craft, the only 2 companies that have that many craft, both said it wasn't them. When 2 blue helicopters buzzed my house, the only company with blue helicopters said it wasn't them. The same is true of the only company with distinctive yellow craft. (Do we have several rogue companies flying tours to our icefields without licenses or permits?) By lying to the CBJ Tourism staff about these complaints, they ignore the impact of their actions that are in violation of the Voluntary Compliance Agreements that they have signed.

SW 7

Another myth is that they need this level of summer operation to support their winter operations and survive. This is also not true. All except Northstar Trekking, a new company, were able to operate profitably year round for many years. When I see ERA rarely operate during the winter months, it reinforces what a long time ERA pilot told me - that ERA doesn't want to operate in the winter, preferring to make their money in the summer. The bottom line is that they operate for one reason and one reason only - to make money, as much as possible, in as short a period as possible - with no regard for the rest of the community.

SW 8

4. Safety Concerns: The experience of 2 summers ago when 2 companies crashed 4 helicopters on Herbert Glacier, with 7 deaths, indicates the pressure to fly, regardless. (Need I mention Temsco's irresponsible actions in not reporting three downed craft for several hours, hampering the rescue efforts and risking volunteer rescuers' lives?)

SW 9

Another safety concern is too much traffic in a confined area up and down the Channel. I have seen very close encounters with Alaska Airlines jets, as well as with each other and with private craft. It also involves the safety of innocent people under the flight paths, passengers on the Alaska Airlines planes as well as the flightseers. We already have a record of a flightseeing helicopter and a private plane colliding, with 2 deaths. A large number of the helicopter pilots used for these tours are brought up from Outside and lack experience flying over icefields, in our weather conditions, and in the amount of traffic we have. This is a hazard to us all.

SW 10

5. Additional Comments. I urge no new destinations for landings. Satellite helicopters are being investigated to address current destinations. Almost all area trails are impacted by overflights. Residents and independent visitors keep going farther and farther away to avoid noise in their recreation. Please don't follow them.

SW 11

I urge no snow machine tours because of the noise, pollution, and safety issues.

SW 12

I question the long term advisability of dog sled tours. Although they may pick up the feces, at what point will parts of our glaciers be yellow from dog urine instead of the blue we experience now?

SW 13

Not addressed is the impact on property values of noise from flightseeing. Homes purchased many years ago before the popularity of flightseeing are now in a war zone. Although my yard would be a major attraction for buying my home, I could not attempt to sell it during the summer tour season when the beauty of the yard could be experienced.

SW 14

Finally, I believe permit fees should be increased, perhaps through the fee demo program, to adequately cover the cost of monitoring these permittees.

SW 15

For the above reasons, I urge you to reduce the number of landings to the 1994 level, a level that, while annoying, was definitely tolerable. It is a good compromise.

SW 16

6. Finally, if the number of landings is not reduced, I urge you to hold the number of landings to the current actual use level, Option C. However, I would modify Option C to require termination of daily flights (back to the heliport) by 7 pm, not 8. To accommodate the ship schedules, let the operators negotiate with each other to determine, each year, depending on the ship schedule, which day will be flight free. I make this option my 2nd choice because I believe we need to give the possibility of satellite heliports time to be pursued. Now that the Baker & Associates study is complete, the CBJ Assembly and industry, working with the public, can see if this plan will work. If this plan is advanced, the noise in residential areas will be greatly

SW 17

50 14.
reduced. Another area to be pursued is quiet technology. What will be the impact of these craft, running in 4 and 6 packs. Will there be a significant difference. I believe we need to give these 2 plans an opportunity to advance, which will take a few years. At that time, if the anticipated improvement results, the number of landings could be increased. You might also consider an increase in landings, but only to those made in the new quiet technology crafts. Let's give these mitigation measures a chance to be implemented before adding even more noise to residents.

17. In summary, I favor a reduction in the number of landings or hold at current actual use levels until mitigating measures currently under study can be advanced.

Hours of operation should be 8:30 am to 7 pm (with flights returning no later than 7), no more than 6 days a week, with the free day to be negotiated annually.

No new destinations.

No snow machine tours.

Sincerely,

Sandy Warner
Sandy Warner
PO Box 20821
Juneau, AK 99802
(907) 780-6026
warner@ptialaska.net

TD
RECEIVED

SEP 04 2001

Juneau Ranger
District

Box 210862

Auke Bay, Alaska 99821

30 August 2001

Peter Griffin

U. S. Forest Service Juneau Ranger District

8456 Old Dairy Road

Juneau, Alaska 99801

Dear Mr. Griffin:

As a homeowner in the Montana Creek area I wish to lodge my objection to a Heliport in the Montana Creek Drainage. At this time you can not sit outside in you yard, without the constant loud background sound of helicopters. My neighbors and I live in the country to get away from the noise and problems of an inner city environment. Most of us live in Alaska for the peace and quite and the other thing that make Alaska special. We give up many things to live here in Alaska. We are far from our families and all those good things that "Outside" has to offer.

Montana Creek is a residential area we did not build here to have a Heliport next door. We build here in the country for those special things that Alaska has to offer. A heliport does not add anything but negative harm to our neighborhood. Over the past years noise from industrial uses has increased in the Montana Creek Drainage. We do not need a Helicopter Heliport in our residential neighborhood. Over the past two years a new residential development has been built in the Montana Creek Drainage. All these people have an investment in this area and it does not include having a Heliport next door. Most people live here for the recreational values it has to offer. I strongly object to putting a Heliport in our residential neighborhood. Do not consider Montana Creek Drainage for a Heliport.

Yours Truly

Tom Doran

Tom Doran

TD
1

9/12/01

U.S.F.S.
Juneau Ranger District
Juneau 99801

Juneau Ranger District

SEP 24 2001

RECEIVED

Gentlemen:

I have followed the public commentary about helicopter landings in the Juneau Icefields and wish to comment on the DEIS for Helicopter Landing Tours on the Juneau Icefield.

These observations influence my opinion.

1) Critics of helicopter landings insist that a suitable resolution to this issue will not evolve until more information and a better analysis is available. But this position appears disingenuous to me; what the critics really mean is that the information and analysis will be adequate only when it clearly disqualifies helicopter landings on the Juneau Icefield. The critics will ask for more information until they get their way.

TM
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2) Critics of helicopter activity involving tourists also argue that their (the critics) opinions deserve special weight, after all, they live here and have to endure the noise and commotion. But the people who only visit Juneau as tourists don't really have the opportunity to become involved in the review process, their opportunity to become involved is only reflected when they elect to visit Juneau and access the icefield via a helicopter. Certainly the Juneau Icefield belongs to the whole nation, a group ~~larger~~ larger than our own group of local critics. If the forest service were to dedicate timber harvests to keep open a local saw mill, these very same critics would scream that the forests belong to all of the citizens not just the greedy lumber industry. The critics also point their fingers at the impacts generated by helicopter ~~activity~~ activity and bovine by homeowners, families and children, for instance

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TM
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TOM'S POTS
TOM MEYER OWNER
229 5TH ST.
JUNEAU, ALASKA 99801
(907) 586-1773

However, when I came to Juneau
Bonnie Brae Subdivision was forested land
without homes; Livingston Helicopter and late
ERA Aviation was located below what
is now Bonnie Brae. In the last
25 years Bonnie Brae was developed and
people built and bought homes, with families
and children, adjacent to a helicopter
landing site, making me wonder how objectionable
the helicopter noise really is.

TM
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(cont.)

With 3 observations above in
mind I can only conclude that the
public interest would be best served if
the USFS selected Alternative G,
allowing landings to grow at 10% per
year, when selecting a preferred alternative
in this environmental impact assessment process.

TM
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Thank you.

Tom Meyer

RECEIVED
10-1-02

"Tim McDonnell"
<tim_mcdonnell@temsc
co.alr.com>

To: <ehall@fwenc.com>
cc: "Tim (SEA) McDonnell" <timcdonnell@aol.com>
Subject: 2001 DEIS Comments



10/01/01 05:35 PM
Please respond to "Tim
McDonnell"

TMC

Date: October 1, 2001

To: Ellen Hall

Foster Wheeler Environmental Corporation

12100 NE 195th Street, Suite 200

Bothell, WA 98011

From: Tim McDonnell

VP Tours & Marketing

TEMSCO Helicopters, Inc.

1650 Maplesden Way

Juneau, AK 99801

RE: DEIS - Helicopter Landing Tours on the Juneau Icefield 2002 - 2006

Dear Ellen,

As the eighteen-year pioneer of helicopter tours in Alaska, TEMSCO Helicopters supports helicopter operators in their desire to provide continued access to the Tongass National Forest's Juneau Icefield and recommend that the District Ranger select Alternative "G" in the Draft Environmental Impact Statement (DEIS). This alternative would provide continued access to the Icefield and allow for expansion for businesses that operate less than 6 months. Clearly, Alternative "G" fully supports the mission of the United States Forest Service to manage the nation's resources while providing social, economic and environmental benefits for our

TM
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citizens.

In late January, when the noise meditation process failed, City Manager Dave Palmer hired an attorney who specializes in aviation to advise the city about the legality of its options for mitigating flight noise. At that time, flight-noise activist Ray Preston heralded the manager's action in seeking an objective opinion (Empire, Jan.23), saying "I think it's a good idea the city seek independent counsel."

With the release of Mr. Durden's objective opinion and professional recommendations, the logical course of action seems clear.

To set a context for his recommendations, Mr. Durden first summarized the findings of recently conducted professional noise studies that certify that flightseeing noise is neither a health hazard nor incompatible with housing.

"Two extensive noise surveys have been conducted, one, pursuant to the requirements of the Federal Aviation Regulations (FAR's) under 14 CFR Part 150 of the area surrounding the airport (the Miller Study) and one by Michael Baker of the noise in the channel and a portion of the valley (the Baker Study). The Miller and Baker noise studies showed that the generated noise level in the channel and valley is not loud enough to reach the level set out by the Federal Aviation Administration as being incompatible with residential dwellings and is not high enough to cause a health hazard..."

"The noise levels giving rise to the complaints must be kept in perspective. The highest noise levels from aircraft operations anywhere in or near Juneau are immediately surrounding the airport, not over the channel or the valley."

The report continues:

"It must be clearly understood at the outset of this report that the noise levels in the valley and over the channel are well below the standards established as a health hazard or incompatible with housing."

"The noise levels in the effected areas are not a health hazard and to the extent that they are uncomfortable or an aggravation, the level of aggravation is purely subjective. This was repeatedly affirmed in my interviews of Juneau citizens."

Finally, air tours are the most ecologically safe way to view and appreciate the Juneau Icefield with little or no impact to the resource. The DEIS does not mention negative impacts to the Icefield from flightseeing: presumable, none have been identified. It should also be noted that environmental education and stewardship are key components of Icefield tours.

The DEIS cites anecdotal evidence of opposition to helicopter flightseeing. A

disproportionate amount of negative language focuses on the noise "impacts" of flightseeing. These same "voices" are ignoring that, the fact that just last fall, Juneau voters rejected a proposal of the "Peace and Quiet Coalition" to limit flightseeing operations in Juneau. In fact, during the 2000 municipal election, voters overwhelmingly (68% - 32%) rejected some of the very same limitations that the DEIS mandates in Alternatives "B", "C", "D", & "E". The only, recent, statistically valid "poll" on community sentiment concerning flightseeing was the election. If public opinion is indeed a critical element of the of the USFS decision-making process, Alternatives "B", "C", "D", & "E" should be eliminated from serious consideration.

While noise is an issue for some people, I know from personal experience that many of the complaints are grossly exaggerated. I also believe that some people who cite "noise" as a reason to limit flightseeing, are actually trying to fulfill their primary objective: to reduce cruise ship visits to Juneau. This clearly is not within the power of the USFS to control.

It should finally be noted that as a Juneau helicopter operator, we have invested a tremendous amount of time and resources in adapting our operations to address community concerns. We are actively pursuing "quiet technology" as one of the company goals.

Thank you for taking the time to read and consider my comments.

Sincerely,

Tim McDonnell

VP Tours & Marketing

TEMSCO Helicopters, Inc.

1650 Maplesden Way

Juneau, AK 99801

(907) 789-9501

RECEIVED
FEB 11 2008

Larri Spengler
<lapengle@ak.net>
09/22/01 11:21 AM

To: <pgriffin@fs.fed.us>, <ehall@twenc.com>
cc:
Subject: DEIS comments (helicopter icefield landings)

TNA1

Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041 pgriffin@fs.fed.us

Ellen Hall
Poster Wheeler Environmental Corporation
12100 NE 195th Street, Suite 200
Bothell, WA 98011 ehall@fwenc.com

September 21, 2001

RE: Helicopter Landing Tours on the Juneau Icefield 2001 DEIS

Greetings:

At its September 16, 2001, meeting, the Thane Neighborhood Association discussed the July 2001 draft environmental impact statement prepared by the Forest Service regarding helicopter landings on the Juneau Icefield. We have the following comments.

Thane supports and welcomes tourism in Juneau. However, many of our members have been concerned about the level of noise associated with flight seeing in our community, of which the helicopter tours are one component. It is the responsibility of government to make sure that the impacts that accompany permitted activities are not unreasonably detrimental.

There already is a serious problem with flight seeing noise in Juneau, and the members attending our meeting felt it is unwise to increase that problem by increasing permitted landings. No one at the meeting spoke in favor of an increase.

Fifteen individuals, two thirds of those present, voted to favor the approximately 30% reduction from the 1999 actual level, as set out in Alternative B. The remaining eight members attending expressed the opinion that the 1999 actual level should be rolled over for one more year, so that the flaws in the draft EIS can be remedied, and a thorough analysis can be completed at that point.

No one present supported any increase from the 1999 actual level. Further, no one who was unable to attend communicated that preference, after receiving a notice about the meeting that clearly spelled out the options

Our association believes the draft EIS is inadequate for a number of reasons.

A primary deficiency we discussed is the failure to consider problems caused by current levels of flight seeing. There is simply an unacceptable amount of aircraft noise throughout our community. This affects peoples' lives in many ways, and is especially troublesome when it invades Juneau residents' homes and the sites of formerly peaceful recreation. There is also concern

about other impacts of the noise, such as the potential for a decline in property values. Ways of addressing this issue, such as altered flight paths and quiet technology, are simply inadequately analyzed by the draft.

Another inadequacy we discussed is the lack of a logical and evidentiary basis for the alternatives which would consider increases of 14%, 45%, and even 83% over the actual 1999 level. Since the existing permit level has not been reached, such dramatic theoretical increases seem unfounded.

A third area we discussed in which the draft EIS deficient was in the realm of safety. A number of tourism accidents in recent years have involved helicopters, and an increase in permits would seem to increase the chance for such tragedies. That should be evaluated as part of the EIS.

We encourage the Forest Service to address the helicopter noise problem directly, and cumulatively with other flight seeing noise. Only when the overall noise level has been reduced should an increase in permitted helicopter landings even be considered.

Given the extent of deep citizen concern on this issue, it is not acceptable for the Forest Service to avoid considering the impacts the current levels of helicopter landings are having. Clearly, the helicopters heading for the icefield are one part of this community problem, and it is disingenuous for the Forest Service to disavow responsibility for looking at that.

Sincerely,

Larri Irene Spengler
President, Thane Neighborhood Association

cc:
Thane Neighborhood Association members
Juneau Assembly Members.

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(cont.)

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Larri Spengler
 <lspengler@ak.net>
 09/23/01 01:45 PM

To: <poriffin@fs.fed.us>, <ahall@twano.com>
 cc: Ellen Cook <riccook@ptialaska.net>, "Richard J. Cook DDS"
 <rickellencook@gcl.net>
 Subject: DEIS - Thane Neighborhood Association additional information

TNA2

Dear Mr. Griffin and Ms Hall:

Mr. Cook indicated to you in his letter, a copy below, that I had disregarded his view on the ice field landing issue in drafting the Thane Neighborhood Association comments. By a copy of this, I certainly apologize to him if we had a misunderstanding.

Last May he expressed to me strong views about the potential for an alternate heliport site being located in Thane. He never commented on icefield landings.

Since the association handled and discussed the two issues as separate (though related) matters, I did not realize that Mr. Cook intended his May message to apply to the number of landings we were considering in our September meeting.

Obviously, as our Neighborhood comments to you indicated, Thane residents are not unanimous on this subject, although the majority that have responded have supported reductions in the numbers of landings. As our letter to you stated I had no responses supporting increases in landings to the notice of the meeting, which clearly spelled out the range of options to be considered.

Again, I am sorry I did not understand that his comments in May about the alternate heliport site issue should be applied to this matter. I am glad he commented directly to you, to clarify the record on that.

Sincerely,

Larri Irene Spengler
 President, Thane Neighborhood Association

cc
 Richard Cook
 Ellen Cook
 Thane Neighborhood Board members

> From: "Richard J. Cook DDS" <rickellencook@gcl.net>
 > Date: Sat, 22 Sep 2001 10:30:28 -0800
 > To: <spgriffin@fs.fed.us>
 > Cc: "Larri Spengler" <lspengler@ak.net>, "Ellen Cook" <riccook@ptialaska.net>
 > Subject: Another opinion: DEIS comments (helicopter icefield landings)

> Dear Mr. Griffin,

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 11/22/01

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 11/22/01

TP

Pete Griffin, Juneau District Ranger
 US Forest Service 8465 Old Dairy Road
 Juneau, Alaska 99801

September 13, 2001

Dear Mr. Griffin:

These are my personal comments on the Helicopter Landing Tours on the Juneau Icefield 2001 DEIS.

I favor reducing current helicopter use of the Juneau Icefield or maintaining it at the current (1999) actual level of use, either Alternative B or Alt. C. I am adamantly opposed to expanding the area subjected to helicopter use and disturbance north of the current boundary or onto Eagle Glacier and Death Valley. I also support maintaining at least a 1/2 mile buffer between helicopter use and important wildlife areas, buffers around trail ends and icefield research areas, and some helicopter-free days when residents and trail users are not subject to helicopter noise and disturbance. I am opposed to early-season exceptions to trail end buffers. If conditions don't permit landings in other areas higher up the glaciers, then flights should not be conducted until they improve. In regard to expansion into new areas, the Forest Service needs to ensure that there are areas of the icefield that are available, and hospitable to other icefield users. Under the current permit levels there are hardly any areas of the icefield not open to landings or helicopter overflights. Particularly impacted are areas close to the road system accessible to those without helicopters.

Contrary to the statement in EIS table 2-1, the Proposed Action, in so far as it allows landings within buffer zones for mountain goat kidding areas, is not compatible with TLMP. The incompatibility would be compounded if landings were permitted in Andler Lake and Andler River areas and the glacier feeding the Lacey River. I am opposed to any expansion of landing areas north of the current boundary along the Gilkey River.

The EIS also repeatedly confuses monitoring with mitigation. A promise to monitor the effects of an action does mitigate any detrimental effects of the action. At best it can only document the detrimental effects. I am not reassured by Forest Service promises to monitor potentially detrimental activities. In 25 years of living in Southeast Alaska with extensive personal experience with land use management issues, I have never witnessed significant Forest Service alteration of an ongoing activity because detrimental impacts were discovered. If doubt exists as to the effects of an activity then it should not be permitted. It is always harder to rescind permission of a damaging activity, particularly if a large capital investment has been made, than to deny permission to start it. Controversial, potentially damaging activities should only be permitted after well-designed, well-funded studies determine that they will not be detrimental to resources. To date, the Forest Service has not conducted any such studies on the effects of helicopter use of the icefield.

A common problem of noise studies such as the one you have conducted for the EIS, is that noise quality as well as magnitude, is not considered. The noise studies used for the EIS only address noise level, not frequencies of noises. The low frequencies of some helicopter noise can have detrimental effects that exceed what one would expect from their decibel levels. On the west glacier trail and elsewhere I have experienced discomfort in my ears and chest from low frequency vibrations from helicopters that were not excessively loud in the normal definition of the term. I believe noise is an extremely important issue. The EIS seems to imply that because of the results of the noise study it is not real problem, only a perceived one. I disagree, along with the ubiquity of helicopters throughout the icefield it is one of the most important issues for me and the community. It is not enough to trust that technology will improve and diminish noise levels in the future. Before an increased number of landings and flights is permitted, progress in reducing noise, not simply

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promises to do so, must be demonstrated. A new study needs to be done that includes noise quality as well as quantity.

Throughout the EIS the Forest Service makes statements that current helicopter use on the icefield is not detrimental to mountain goats, that goats have become habituated to helicopter traffic, that goats will habituate to increasing traffic, and that more helicopter traffic will have negligible effects on mountain goats. These statements are based on brief periods of observation conducted on far too small a scale and with insufficient scientific rigor to justifiably arrive at these sweeping and happy conclusions. The Forest Service has for many years avoided its responsibility for thorough study and monitoring of the effects of its permitted actions on mountain goats and other wildlife. It is not appropriate to continue to increase the level of helicopter use of the icefield near mountain goat habitat until a thorough, rigorous, well-funded, and longer-term study of goats and helicopters on the icefield is conducted. It is time the Forest Service funded and began such a study in cooperation with ADF&G and other agencies and groups with wildlife expertise.

The Forest Service needs to follow the example of Denali National Park and Glacier Bay National Park which early in their histories took steps to limit and firmly control the level and impacts of large-scale tourism (i.e. restricting road traffic, limiting cruise ship traffic, limiting float permits on Alsek-Tashenshimi). Because of the foresight used in those parks, management problems have been minimized over the years, expansion has happened gradually and in ways beneficial to the resources, and the management has been hailed as visionary. I understand that the Juneau icefield is not a national park, but the principles of sound, conservative, far-seeing resource management used in the parks can and should be used in this situation.

As I have said in comments on previous EISes, the Forest Service needs to learn "when to stop" in sanctioning uses of the national forests. Typically, with logging, mining, and industrial tourism the Forest Service has allowed commercial operations to multiply and expand in a given area until resource damage occurs or until the fundamental character of the place is changed with managing is altered or destroyed. We cannot rely on commercial operators to show restraint or good judgement in demanding access. They are motivated solely by profit and will never be satisfied with the level of activity allowed. For the same reason, the fact that projected demand exceeds supply – in terms of growing numbers of cruise ship passengers compared to static or diminished numbers of icefield landings – is not sufficient justification for increasing permitted landings at this time. The responsibility for good management (and the blame for bad management) rests solely with the Forest Service. It is a big responsibility and I hope you will consider more than the political and economic interests of those who profit directly from helicopter landings on the icefield. When current operations are below the levels allowed under existing permits it is clearly premature to increase landing levels.

Thanks for the opportunity to comment.

Sincerely,

Tom Paul

Tom Paul
525 W. 9th St.
Juneau, Alaska 99801

Cc: Ellen Hall

REC'D SEP 25 2001

TR

COMMENT FORM

Helicopter Landing Tours on the Juneau Icefield 2002-2006

Draft Environmental Impact Statement

September 8, 2001 • Public Meeting

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please carefully review all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name: TED RANDALL
Address: 617 WILLOW ST
City, State, Zip: JUNEAU AK
e-mail address: _____

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☐ Yes ☒ No

Comments Category

My comments relate to (check any that apply):

- ☐ The EIS Process
☐ The Alternatives
☐ Alternative A
☐ Alternative B
☐ Alternative C
☐ Alternative D
☒ Alternative E
☒ Alternative F
☐ Alternative G
☐ Significant Issues
☐ Noise Impacts to Residents
☒ Noise Impacts to Recreationists
☒ Impacts to Wildlife
☐ Impacts in New Areas
☐ Economic Uses

My Comments

TR 1
AS A LOCAL RESIDENT AND PILOT FOR ERA HELICOPTERS IN JUNEAU FOR THE LAST 5 SEASONS MY PERSONAL EXPERIENCE HAS SHOWN LITTLE EFFECT ON IMPACT TO WILDLIFE ON THE TOUR ROUTES WE CURRENTLY FLY. I ALSO SELDOM SEE ALTERNATIVE ROUTES.

OWF...

TR 5

TR 6

My Comments

TR 2 (out) IN THE AREAS WE FLY SO THERE IS LITTLE TO NO IMPACT TO RESIDENTS, I THINK THE CURRENT LEVEL OF FLIGHT SEEING OR MINIMAL GROWTH WILL PROVIDE A GOOD BALANCE BETWEEN ECONOMIC DECISIONS AND THE PROTECTION OF OUR ENVIRONMENT

WJD

RECEIVED

September 7, 2001

Pete Griffin, District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041

RE: Helicopter Landing Tours on the Juneau Icefield 2002 - 2006
Draft Environmental Impact Statement

Dear Sir:

I am a 20 year resident of Juneau and recreational user of the Tongass National Forest for hiking, camping, skiing, hunting and fishing. I have been to all of the cabins accessible from the Juneau road system and most other local cabins available only by boat or floatplane. My house is at 19415 Glacier Highway, and reasonably well removed from routine helicopter noise. Similarly, my employment at Auke Bay restrains my outdoor activity during the highest periods of daily helicopter usage. Despite these unplanned protections on my part, helicopters noise is increasingly degrading my quality of life. As a result, this letter is in support of restricting or reducing helicopter landings on the Juneau Icefield.

During my lunch hour I routinely hike the Spaulding Meadow Trail, and when time permits, the spur trail to John Muir cabin. The trail affords quick access to wilderness and good exercise. Helicopter noise in recent years has increased to the point of often making the hike painful. A fleet of six helicopters in linear formation requires several minutes to pass overhead; during that time, all forest sounds are drowned out, and often even talking to a hiking partner is difficult. Within minutes, the fleet of noisemakers is returning, having dropped off customers, picked other customers already on the icefield, and off to pick up yet more waiting passengers. The overhead flights can be almost continuous some days, such that I often check the newspaper to see how many cruise ships are in town to plan my daily activities. When I have guests in Juneau and take them on hikes along the Perserverance trail, East and West Glacier trails, and Mount Roberts trail (and others), helicopter sights and sounds now often permeate the experience.

This summer I made several hikes to the Windfall Lake cabin. Guess what - more helicopters, every time. My weekend visit to the Eagle Glacier cabin this summer was likewise marred by helicopters. An almost magical weekend occurred during which no other hikers visited the area, and small flocks of tundra swans and Canada geese swam in front of the cabin - but the sights and droning sounds of helicopters diminished our quality of enjoyment.

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TS 3

TS 4

I am not against tourism to our area. I think tourism can be a "clean" industry that educates the public to many environmental issues while they are enjoying themselves. I much prefer tourism to other kinds of industry. Most Juneauites are tourists themselves, to other locations and often at different times of the year. I am no exception. While hiking in the higher elevations of the rainforest in Granada last winter, I noticed the absence of helicopter noise - how wonderful! I could hear birds, the rustle of wind in the trees, and talk to companions. Our tour guide served on the local Chamber of Commerce and other tourism committees, and explained that they had voted to ban sightseeing helicopter flights from the island before it got started, knowing that once started it would be almost impossible to eliminate.

I am not opposed to helicopters, as they serve many vital roles in our region. Also, I do not propose banning helicopter sightseeing flights in Juneau. However, I believe that the number of daily and total flights has already exceeded carrying capacity. By that I mean that the current level is detrimental to the point of creating serious conflicts between local residents and the tourist industry. The number of daily flights has also probably degraded the quality of the experience for tourists, also.

TS 5

Also, I believe that most local residents not involved in the tourism business believe that the (helicopter flight-seeing) industry does not pay its share of costs (in the form of local taxes or contributions) to mitigate the effects. The prevailing opinion is that most helicopter tours are either exempt from local taxes, or tours are booked outside the city and therefore exempt. Quieter helicopters would help. More restricted days and hours of operation would help. Our useable land space is so limited that alternative air routes only spread the problem to different areas. And, although no amount of money could restore the aesthetics of peace and quiet, additional funds towards local trail or recreational projects might help offset some of the effects.

TS 6

If helicopter flights are in high demand (and appear to be, as they represent 4 of the top 5 tourist attractions to cruise ship passengers), and the total number of flights is restricted, then the companies could let capitalism prevail and increase the price of their flights. A cap on the number of flights (or even a reduction in number of flights) could increase the profitability to operators: more income at less expense. Tourists (enhanced quality of experience) and locals (quiet!) would both benefit.

Sincerely,

Thomas C. Shirley
19415 Glacier Highway (not a mailing address)
Juneau, AK
P.O. Box 210553
Auke Bay, AK 99821
e-mail: Teshbri@GCLnet or Tom.Shirley@unaf.edu



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
1689 C. Street, Room 119
Anchorage, Alaska 99501-5126

ER 01/691

September 21, 2001

Mr. Peter Griffin
District Ranger
Juneau Ranger District
Tongass National Forest
8465 Old Dairy Road
Juneau, AK 99801-8041

REC'D SEP 25 2001

Dear Mr. Griffin:

USDI-1

The Department of the Interior has reviewed the July 27, 2001, Draft Environmental Impact Statement (DEIS) for Helicopter Landing Tours on the Juneau Icefield, 2002-2006. We have no comments to offer at this time.

Sincerely,

Pamela Bergmann
for Pamela Bergmann
Regional Environmental Officer - Alaska

cc: Ellen Hall, Foster Wheeler Environmental Corporation

USDI

REC'D SEP 25 2001

EP 25 2001

September 6, 2001 • Public Hearing

We welcome your comments on the Draft Environmental Impact Statement for Helicopter Landing Tours on the Juneau Icefield 2002-2006. We would like your comments on the entire range of alternatives considered. Please help us by thoroughly reviewing all alternatives and their components. We are interested in hearing what you like or dislike about each alternative and why. Please complete the following form and place it in the comment box, or return it in a stamped, addressed envelope to Ellen Hall, Foster Wheeler Environmental Corporation, 12100 NE 195th Street, Suite 200, Bothell, WA 98011. Comments can also be e-mailed to us at ehall@fwenc.com.

Contact Information

Name William F. Clutton
Address PO Box 21009
City, State, Zip Tucson, AK 99802-2009
e-mail address wfclutton2001.com

Would you like to be added to the Helicopter Landing Tours EIS mailing list? ☒ Yes ☐ No

Companys Gallery

My comments relate to (check any that apply):

- [illegible]

My Comments

PLEASE SEE THE ENCLOSED AND ATTACHED COPIES. I SUPPORT EITHER ALTERNATIVE F OR A. AS LONG AS THOSE RESERVES CAN MAINTAIN THE TRAFFIC AN OPERATOR ARE RESPONSIBLE. I THINK THE MARKET SHOULD SET THE LEVEL OF VISITOR. ALL OF WHICH ARE TO SUPPORT THE TRAFFIC NATIONAL FOREST. I BELIEVE THAT THE SITUATION ABOUT HAS BEEN GREATLY REACHED ALREADY. 100,000 VISITORS A YEAR ARE ABOUT ALL IT CAN TAKE. VISITORS WORTH OF PEOPLE TAKE THEMSELVES ALONG.

Over.....

My Company

TO THESE TOURS, IT REALLY DOESN'T MATTER. HAVING BEEN, MANY ARE
WANTED IN THE MIDDLE EAST AND IMMEDIATELY SUBSEQUENT, BECAUSE 2 MEN
THE JOURNAL, BECAUSE IT IS ABOUT THE LEAD, IMPORTED ABOUT 20% OF THE
TOWNSHIP APPROACH, BECAUSE THE LEAD, AND THE MEXICAN TOURS
LEAVE BEHIND AND THERE IS EVIDENCE THAT THEY FIRST GET TOGETHER
ON A BASIS OF THE TOWNSHIP, BECAUSE BECAUSE, BUT OTHER MEN
WANTED TO BECOME AN OUTSIDE, BECAUSE EVERY BODY IS
TALKING SUCH A CLASH, BECAUSE DO NOT TURN ABOUT OTHER MOUNTAINS
IN THE MIDDLE OF MOUNTAIN, THEN BECAUSE THE PUBLIC LEADS BECAUSE
TO THE PUBLIC, NOT A BECAUSE IN CHARGE, BECAUSE THERE FOR THE
AND BECAUSE

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$$\dots \frac{1}{w_{fcl}}$$
$$\text{wfcI}$$

WFC2

REC'D SEP 25 2001

THOUGHTS AND COMMENTS OF ONE PERSON LIVING AND WORKING IN JUNEAU

- WFC2 1
- Our helicopter tour operation has very exact routes with very exact altitudes. These can vary due to safety and weather concerns. Routes and altitudes are always under review to minimize impact on the community, as well as wildlife and other concerns. Safety is never compromised; however, and remains the primary consideration when determining route and altitude selection.
- WFC2 2
- The Douglas Heliport has been at its present location for forty years. It seems amazing to me that one of the few subdivisions on North Douglas was developed directly uphill from an existing heliport. It is true that the traffic has increased over the past forty years; however, this should come as a surprise to no one. There are very few airports, heliports, or businesses that have stayed the same size or become smaller since their inception. Businesses are created to grow and prosper. Show me a business that has stayed the same or become smaller since its inception, and I will show you a business that is out of business. In 40 years the City, residential areas, businesses, government, airport, vehicle traffic, population, and just about everything else has grown here in Juneau. Forty years ago we had 6 helicopters working out of Juneau. Today we have 14. This amounts to approximately 3.2% average annual growth. This is not "out of control" growth.
- WFC2 3
- Over the past several years, we have altered our routes and altitudes to be more neighborly. This has been done at great expense to our Company and a great inconvenience to our customers. We avoid Gold Creek, no longer conduct external loads from the excavation site near COSTCO, avoid Salisbury Ridge between Dupont Dock and Sheep Creek, and have voluntarily limited our hours of operation to name just a few of the significant changes we have made to minimize our impact on the City.
- WFC2 4
- Eagles have grown up with us, just as they have with the rest of Juneau. There are at least two-dozen in the immediate area, and have never been harassed or shown signs of stress as a result of our operation.
- WFC2 5
- Juneau is a city. In fact it is the third largest city in the State, as well as the State capital. Juneau is not "out in the country". It has always been a noisy industrial and commercial center. Mines, ships, airplanes, helicopters, construction, vehicle traffic, and people are just some of the noise-producers in a city such as Juneau. It is just part of living in a city. A city is like a business. If it does not grow and prosper, it will fade away and die. A city is not "the country". People who choose to live in a city have to realize this. It is more difficult in Juneau, as the City sits between two mountain ridgelines that contain and echo much of the noise, but it is just one of the many problems of living in a city. Cities, by definition, are noisy. One person may not like helicopter noise, another traffic noise, another loud concerts, another construction, another noisy neighbors, and

so on. Still, they are all noises, and all part of living in a city. We must learn to be tolerant of others to live in a city.

- WFC2 6
- The City and Borough of Juneau (CBJ) held a citywide referendum last fall to allow people of the City, as a city, to decide on whether or not air traffic (and especially helicopters) should be curtailed. The referendum was overwhelmingly defeated at the ballot box. The noise in the Gastineau Channel should be a CBJ and a FAA concern. As I look at the map, the CBJ is not part of the Tongass National Forest, though the Forrest does encapsulate the CBJ. It seems some people are trying to use this DEIS to attain concessions and make policy that they could not achieve at the ballot box. I believe this to be neither fair nor ethical.
- WFC2 7
- There seems to be a relatively small group of individuals who would like to see our hours, days, and locations worked greatly curtailed. How many other legitimate businesses are told what days they can, or cannot, work? How many are told between what hours of the day they may operate? Again, this is a private, legitimate business that operates within the laws and ordinances of the CBJ, State, and Federal governments. If any of these individuals owned or worked for a private company, I seriously doubt they would take this position.

WFC2 8

In summary: We operate a business within the CBJ. We abide by all applicable laws, pay taxes, support numerous other business by our activities, employ numerous people (most who live year around in Juneau), and provide a valuable service to citizens of our City, State, Country, and even the rest of the world. We act responsibly and continue to work hard to be a good neighbor. We take care of our property and the environment. If we fail in these areas, the CBJ will let us know, either by the vote of its citizens or new legislation. None of this; however, should be confused with the real issue here. The real issue is what sort of impact does our operation have on the Tongass National Forest, in general, and the Juneau Icefield, in particular. In fact, the title of this DEIS is "Helicopter Landing Tours on the Juneau Icefield 2002 - 2006". By virtually all accounts, and this has not seriously been challenged by even our harshest critics, we do an excellent job of educating the public on the Juneau Icefield, while having a minimal environmental impact. Our operation requires no restroom facilities, visitor centers, trails, parking lots, campgrounds, potable water, permanent structures, or supporting infrastructure. Guests are not allowed to smoke or deposit any sort of trash while on one of our tours. We have flown thousands of tours to the Norris and Taku Glaciers, and I challenge anyone to find any evidence that we have ever even landed on these glaciers. People come away from our tour with a much better understanding of the Juneau Icefield, the Tongass National Forest, environmental concerns, and the need to protect all of this and more. If the taxpayer public is not allowed this sort of access to their Public Lands, they are going to be less likely to want to financially support them. When the public has to decide where it is they want to spend their limited resources, tours like this may well make the difference as to whether or not they adequately fund our National Parks and National Forests. As long as our companies, such as ours, conduct business in an environmentally responsible and safe manner, our operations should be allowed to continue. As long as we continue to

WFC2 9

operate in this manner, the market should dictate the number of people who are allowed to visit the Juneau Icefield. Every U.S. citizen should be able to come to Alaska and experience this National Treasure that we all help to finance. Though I am unaware of any study on the subject, my personal observation from having lived and worked in the Juneau area for 10-years, is that the people who enter the Juneau Icefield and the Tongass National Forest on the ground, have a far greater impact on the ecosystem than those who take helicopter tours. On the ground you will find trails, many badly worn and abused and strewn with litter. There have been encounters with bears and other wildlife, often to the detriment of that wildlife. Structures of various descriptions interrupt the natural landscape and beauty. Please, don't misunderstand, I am not trying to limit this type of access; I am only trying to point out how little of an impact helicopter tours make on the environment compared to more traditional methods of accessing our Public Lands. The noise is really the primary concern of those opposing helicopter tours. To that I would like to point out that noise study after noise study has shown little, if any, impact on the wildlife that resides in the Tongass. Where we land, in the middle of a large glacier, there is very little in the way of wildlife, so we have no close encounters with wildlife. In fact, once we leave the Gastineau Channel area, we encounter, and thus bother, very few people. Many of our Country's citizens are unable to walk into the Juneau Icefield, even at the Mendenhall Visitor Center. Still others do not have the time to hike all of the way back to the Glacier during their limited stay in the area. The only practical way for many of our fellow Americans to see this part of their country is by aircraft. The only way for them to actually get to and stand on a glacier is by helicopter.

When the U.S.F.S. makes its final decision on which Alternative, listed in the DEIS, all citizens of this Country and the rest of the world will have to live with for the next four years, I hope it will concentrate on the widespread accessibility, with minimum environmental impact, that helicopter tours provide. The effects on the citizens of Juneau (of which I am one), residing within the boundaries of the CBJ, should be (and already have been) debated by, and voted on, by the Juneau residents themselves. During the September 6 meeting to discuss the DEIS, I observed that very few of the objections raised centered around the impact helicopters have on the Juneau Icefield and the Tongass National Forest. Instead, they nearly all dealt with the impact of helicopters and tourism on the CBJ. Many of these concerns are legitimate, but are more appropriately dealt with at the city level by city referendum and vote than by U.S.F.S. policy.

Finally, I want to thank the U.S.F.S. for all of its hard work in collecting data and producing this comprehensive DEIS. I also want to thank you for allowing all of us this forum to voice our opinion on the future use of our Tongass National Forest and Juneau Icefield.

Sincerely,



William F. Clutton
Lead Pilot, Era Helicopters
Juneau, AK

REC'D SEP 25 2001

This is a wonderful learning experience and the pilot was careful to explain glaciers, and the impact of our steps was minimal. Sharon Young - Tuolumne, CA

This was one of the most awesome things I have ever experienced. Do not make it so others will not be able to see these beautiful glaciers. Marcy Taylor - Salt Lake, UT

Please keep the glaciers open for visitors. The tour operators are environmentally conscience. Marc Klaus - Sausalito, CA

In a word, the glacier belongs to all of us to use and enjoy. Your regulation and stewardship should be focused on our use and the use of future generations. Balance. Gary Gleicher - Los Angeles, CA

What a wonderful experience this was! If you limit landings, my family and others wouldn't be able to see what a beautiful place Alaska is. I believe as long as trash is not allowed, the natural beauty will continue. Please do continue to allow this incredible experience to continue. I. Gleicher - Los Angeles, CA

Very educational! Lots of facts and information that will make me think more about glaciers and environmental issues. We were supervised by the pilot and caused no damage. Bob Harris - Sioux City, IA

There appeared to be minimal impact by our short visit. The glaciers should be open to everyone. Walt Schambu - Westland, MI

This was one of the most amazing things I have ever done. There is no other way to see what I saw today. I don't want it destroyed by roads and pollution. This is clean, does no damage, please don't ruin this for generations to come. This must be able to continue. Kathleen Warren - Oaklyn, NJ

The icefields belong to all of us. Please do not reduce the helicopter landings. G. Frost - Victoria, Australia

Please do not limit these helicopter landings on the glaciers. They are educational and respectful to the environment. Please do not reduce the landings. These help inspire all Americans to greater environmental protection. We need to see this national treasure! Beverly and William Bishop - Mt. Clemens, MI

This helicopter landing on Harris (Norris) Glacier was an experience of a lifetime. Everyone should walk on a glacier. There was no damage done to the glacier in any way. Please continue allowing helicopters to land on glaciers. Steve and Peggy Moser - Prescott Valley, AZ

Any "environmental damage" (I can see none) is more than off-set by educating the public on the glaciers. Long term climate change, a natural part of the Earth's history, has far more impact. Arthur Lewis - Fairborn, OH

It is my belief that this is the only way that many people will ever experience the beauty of the glaciers, and that the environmental impact is minimal. Landings of the nature that I experienced should be continued. Bill Pelfrey - Clarksville, MI

The information provided was very informative. There was no damage to the icefield as a result of our visit. I would hope that this adventure be available in the future for my grandchildren. The pilot was very proficient and knowledgeable. Mike Cammarata - Whittier, CA

In order to support overall conservation efforts, it is necessary to encourage sustainable economic activities like Era's helicopter tours. Not only do the Era staff respect the environment while performing their duties, they enable thousands of people to share our national treasures while creating jobs for Alaska. Don't let this stop. Jonathan Tok - Jacksonville, FL

A wonderful experience, I see no threat to any wildlife. It would be a shame if my children couldn't experience this. Rich Goulas - Roseville, CA

One of the only ways to walk on glaciers, as most people cannot climb to Juneau icefields. Please do not reduce landings! Tammy Pelfrey - Clarksville, MI

By allowing people to fly above and land on glaciers, it creates more awareness and reverence for the area, which creates more willingness to protect these lands. Don't limit this area!!! Ann Sielsoink - Byron Center, MI

Please - we need to see and touch our public land, or it's not worth having. John Finkler - Byron Center, MI

Please do not limit the helicopter landings. This was an absolutely beautiful experience that I could not have had any other way. Brend Elliott - Olathe, KS

Helicopter service provides a real opportunity to see our natural resources without disturbing nature. No road work or structural objects to deface nature. Joe Waller - Des Moines, WA

The helicopter company respects the glacial environment and surrounding wildlife. Just like any other employment sector, sensible growth should be allowed. I support NPCA, EPF and other environmental organizations and feel that all environmental problems can be solved by smart management and compromise. Elvin B. Stanorich - Summerville, SC

This was the highlight of our trip and our only opportunity to really see and understand glaciers and formations of ice-fields. We, as American taxpayers should always have the opportunity to experience all of our country. No environmental harm could occur from helicopter landings in such a small area of the ice-fields. Mr. And Mrs. P.M. Moreland - Arlington, TX

WFCZ
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(cont.)

As a scientist, I felt that this trip was extremely educational and opened my awareness to glaciers. I felt that the overall impact of our visit was minimal. Aaron Ivery - Seattle, WA

These flights perform a very useful service. As an engineer concerned about damage to nature, I do not believe these flights are causing any damage. Lee Chess - Troutdale, OR

This experience should not be restricted to the few, but available for all. J. Brown - Fife, U.K.

To eliminate such an awesome experience would be a sin! MORE!! Sasha Eason - Folsom, CA

This company has pilots that respect the icepack, and should not be restricted from landing. Gary Williams - Austin, TX

It is a unique experience to be able to view and land on the glaciers, which I hope will not be taken away. There were no footprints left and it does not seem to alter nature.

What an incredible experience! Our helicopter pilot was so careful and respectful for the glaciers. He was so informed and shared an amazing hour with us. It would be such a shame for the public to not be able to see and walk on this beautiful part of the earth! Ray and Diane Tuckett - London, UT

I'm a 54 year old woman who's dream was to experience the wonders of the glaciers. The helicopter trip fulfilled that dream. Please leave the trips as is. You would be doing a disservice to the many who have the same dream. Sage deBelle - Seehalt, B.C.

Limitations on glacier landings is not necessary as the helicopter companies respect the glacier environment. If these landings are restricted, then the average traveler such as myself and my family would be excluded from this type of experience. Rodney Gleicher - Sun Valley, CA

It would be a travesty to stop or reduce visits to the glaciers. The only way for people to realize the fragile beauty of nature is for them to see it! Don't reduce, increase visits to the glaciers. Don't think like an idiot, think like one with a mind. Think behind the things you propose next time to find the real answers. King David - Potomac Falls, VA

As a U.S. taxpayer, why would (you) even think of not allowing us to enjoy our best and most enjoyable helicopter ride. Robert R. Brown - N. Canton, OH

The impact on the glaciers cannot be detrimental. The pilot landed soft and I did not damage anything. By being there, I cannot see any difference by flying in or going in with a dog team or backpack. My time is very valuable to me and I cannot afford 2 weeks to see what I saw in 2 hours. R. Aron Brown - M.D.P., CA

WFCZ
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(cont.)

The most efficient, and sometimes the only possible way for citizens of our country to visit these glaciers is through the use of air travel. Please do not limit or ban air travel to these glaciers. Roger Bomford - La Jolla, CA

I feel like the icefield is a part of God's nature that belongs to all of us. Please do not limit helicopter landings, as it is the only way we can experience the glaciers and no harm was done. Sheila Hilleke - Snellville, GA

So long as pilots and passengers are respectful of the glaciers and the surrounding environment, these flights and landings should be permitted. These national treasures should be available for us to appreciate, not be locked away like museum pieces in a storage closet. Scott Novey - Petaluma, CA

With respect for glaciers - essentially being "national treasures" - it is powerful to be able to stand, walk, and touch a glacier. That experience should not be denied to visitors nor locals. With safety in mind access should continue.

To deny us the opportunity to experience the glaciers, via a short walk (by helicopter flights) would be a travesty. I feel we are environmentally aware, and in all honesty I cannot see how the heli-landing could adversely affect us environmentally. Dave and Linda Parsons - Lakewood, CA

Reducing or capping helicopter landings on the Juneau Icefield would limit thousands of people each year from seeing Juneau's natural beauty. The helicopter companies should be able to grow as long as they keep the environment clean! Ann Beckwith - Fresno, CA

This was a great opportunity to learn about the glaciers and admire their majesty. Era did a great job respecting the environment. Please don't limit helicopter flight seeing or landing. Allow sensible growth and development, but don't limit our opportunity. C. Chorak - Universal City, TX

It would be very unfair to deprive others of the wonderful experience of landing on the glacier that we have just completed. Harry Hersh - Islamorada, FL

I couldn't imagine not being able to experience such astonishing sights this planet has to offer, as glaciers. The safety was never a question or concern. All is needed is qualified pilots and responsible passengers. Please keep this!! Melody Dearcus - Hanford, CA

This was a magnificent experience! The helicopter landing was gentle and we could see no impact on the glacier. It was a moment of respect and awe! Thanks so much for this opportunity. H. and J. Turun - Canterbury, NH

The helicopter flight and glacier landings were very educational. I think it is important to provide the opportunities so everyone can be educated about and appreciate the environment. More educated we are the better we will preserve for the future. Susan Monk - Marietta, GA

People should be allowed to experience these wonders. No harm is done to anything with these landings. Each customer is a potential supporter of the U.S. Forest Service. Recruit them to support your work. Don't alienate them. Alexander Astin - Los Angeles, CA

Has enabled us to understand! Something that cannot be achieved thru T.V. or books. Incredibly beautiful - should be available to everyone -- not just scientists, geologists, and environmentalists! T. Minshull - Paso Robles, CA

I can see no other way for United States nature lovers (and citizens) to see these wonders of nature and the magnificence and power. David L. Peterson - Royal Oak, MI

Fabulous - Educational - Enlightening. Keep these trips (helicopter) open for our children and grandchildren. B. Peterson - Royal Oak, MI

Sensible growth should be allowed keeping the environment impact in mind. The helicopter company we flew with was very conscientious about safety and the environment. Everyone should have the opportunity to experience this. Mr. And Mrs. Paul Hamilton - Norwalk, CA

WFC2
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(cont.)

WFC2
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(cont.)

WFC3

REC'D SEP 25 2001
 RESPONSE TO PUBLIC COMMENTS FROM THURSDAY
 SEPTEMBER 6 MEETING

I would like to respond to some of the concerns raised by some of the people at this meeting, even though I believe most of these are issues that should be debated by, and voted on by, the citizens of Juneau. In other words, there were many concerns expressed that I do not believe fall within the parameters of the "Helicopter Landing Tours on the Juneau Icefield 2002 - 2006, DEIS". I would also like to add that even though I work for one of the helicopter operators, the views expressed here are my own, and not necessarily those of the company I work for. I have been an Alaskan resident for 18 years, and a resident of the Juneau area for 10 years. I am a hiker as well as a pilot, and have had the opportunity to hike and fly over a good part of the Juneau Icefield. I live in Douglas near Sandy Beach, which means that I live in one of the areas of concern.

Effects of noise on the people of the City and Borough of Juneau (CBI).
 The helicopter industry has taken great pains to minimize the noise impact on the CBI. We are constantly reviewing routes, altitudes, and policies in a never-ending effort to be a good citizen of the CBI while meeting our customers' needs. Still, this is a City issue, more than a U.S.F.S. issue. It was addressed last year in a citywide referendum to greatly curtail helicopter and tour aircraft activity. The referendum was overwhelmingly defeated at the ballot box. This DEIS should not be allowed to be used to gain through Forest Service policy, which should only begin at the Forest Service boundary, what was defeated by a vote of the CBI citizenry.

Effects on goat populations.

The DEIS shows that we have a minimal, if any, impact on the goat population in the areas we fly. According to the study, the goat populations have maintained their level, and in some areas the populations have even increased. We fly exact routes and altitudes. We do not harass wildlife, or even deviate from our route to view any form of wildlife. We make it clear to our pilots, staff, and customers that ours is a Panoramic Flight Seeing Tour, not a wildlife tour. We have been flying essentially the same tour for over ten years. During this time, several generations of goats have been born and have lived near our tour route without detriment to their lives, mating habits, or kidding.

Effects on eagles and other birds.

There are, and have been, dozens of eagles residing near the Douglas Heliport. In fact eagles surround our heliport. We always have both immature and mature eagles present, indicating that nesting is going on and generations are residing as close neighbors. Our flight path in and out of the Douglas Heliport has never had any adverse affect on the eagles. This facility has been here for forty years. Many generations of eagles have been born, raised, and have stayed in this location. I have never even heard of a helicopter having any sort of encounter with an eagle here. Nor have we had any adverse affect on any other species of bird living in the Juneau area. A comment was also made about the affect of

helicopters on eagles flying over the glaciers and the Juneau Icefield. I have flown in the Juneau Icefield since 1991, and while I have seen eagles near and over the toe of several glaciers, I have never seen one flying more than a mile or so up a glacier, much less in the Icefield area. There is no food, to speak of, for them obtain up there; and thus no reason to go up there. They tend to stay near the coast where there are trees and food.

Enclaves and development.

Unlike other methods of entry into the Juneau Icefield and the Tongass National Forest, out Panoramic Tour has no trails rutted into the earth, litter, cigarette butts, restrooms, visitor centers, potable water sources, trail structures, buildings, or other infrastructure. We leave no mark on the glacier surface and no evidence that we were ever there. Yes, we make some noise; but again, it has been shown that that noise has minimal, if any, impact on the wildlife populations. In addition, where we fly, we rarely see other people, as very few people hike outside of the Gastineau Channel area, where the majority of our tour takes place. Our Dog Sledding Tour has a temporary seasonal camp where all wastes is removed daily and the entire camp is removed by the end of August, and the site inspected by the U.S.F.S.. Within a very short time there is no evidence that anyone was ever there, as only snow is disturbed.

Customer service, customer satisfaction, and safety.

I can only say that our record speaks for itself. Our tour rates among the highest of all tours given in the Juneau area. Our customer comment cards back that up. We fly tens of thousands of passengers to the glaciers each year, and we have never had a serious injury, in the air or on the glacier, befall one of our customers. I will match that safety record against anyone's.

What steps do we take to avoid wildlife interference or encounters?

We land in the middle of a very large glacier. We simply do not encounter wildlife at this location, so we do not have any "encounters" to deal with. Still, our pilots are trained to scan the landing area on approach for any wildlife that may be in the area. If any was ever spotted, they would reposition to an area well away from the wildlife. If any appeared once they were shut down on the glacier, the pilot would move the passengers back inside the helicopter and leave. As the glaciers are wide-open, it would be easy to spot approaching wildlife while it was still a long way away. Again, we have never had a problem with bears or other wildlife encounters. The same cannot be said for hikers venturing into the Juneau Icefield and the Tongass, on or off trails.

Noise studies and concern about whose data was used, and why.

Again, for the most part this is a CBI issue and was dealt with in last fall's publicly voted-on referendum. A word about the studies, though. In large part, the studies said that noise was more or less in the ear of the beholder. You could have noise from a waterfall, a baby crying, automobile traffic, construction, floatplanes, and helicopters; all at 85 decibels. The quantitative results are

identical, yet some people will find the waterfall more soothing and less annoying than the baby crying or the helicopter flying overhead. Even if the helicopter has a lower decibel level than the traffic, some people will perceive the helicopter as being noisier, simply because it reminds them of tourists, and they don't happen to like tourists. Many of the noises we hear in a city become "white noise". Traffic, for instance, goes on virtually nonstop. As a result, we hardly even notice it, and yet it may well be louder than a helicopter that we hear for just a few minutes before it leaves the area. You can have a dozen noise studies and they may well produce a dozen results; because dealing with what people hear, or what they think they hear, is so very subjective.

- *Decreased property values as a result of helicopter noise.*
Again, this is not a DEIS or Forest Service issue, as the homes are within the CBJ. Still, I will comment a bit on this. Forbes Magazine cover story for their September 3, 2001 issue was entitled: "What If Home Prices Crashed?" It shows a young couple with the subtitle: "Their house lost \$1 million in value." It could happen to you. It could happen to a lot of people and wreck the economy. Houses are not the "investment" they used to be, and many people have not yet awakened to this idea. Many things cause a house to decrease in value or bring less at market than the owner thinks it should, such as the economy in general, population fluctuations, number of homes on the market, poor construction that shows up in an inspection, pollution on the land that may cost a bundle to clean up, or an unrealistic or unreasonable asking price, to name just a few. Point being, there is no evidence that suggests, even for a moment, that people are either moving, or getting less for their homes, because of helicopter tour noise in Juneau.

- *The subject of "social encounters".*
It was brought up in the discussion that helicopters should be considered a "social encounter" when flying over people on the ground. That is a technical and semantic issue that could be (and probably will be) debated ad nauseam. I would just like to point out that if everything in the line of sight of a person on the ground is a "social encounter" to be limited or removed, we are going to have to knock down a lot of structures, vehicles, and even other hikers or bystanders. Where would it end? Ridiculous!

- *It was suggested that most of the people who work for helicopter companies are from out of town, or out of state, and should therefore have less of a say in policy.*
The company I work for has a year around staff on hand of 3 office personnel, 2 mechanics, and 3 pilots that live here in Juneau. It would be more if there was more year around work. Still, even in the summer, we employ (in addition to the above) about 20 to 30 ground crew who are residents of Juneau, and about 20 pilots and mechanics that are year around Alaskan residents. I think these people are every bit as much citizens of this community as the uniformed person who raised this issue. Even if we employed no locals at all, that should have no bearing on the DEIS and our operation's impact on the Juneau Icefield and the

Tongass National Forest. Every U.S. citizen, whether or not they are a resident of Juneau, ought to have a say in how their Public Lands are administered.

- *Noise impact on day care, children's ability to learn, and language development skills.*

Again, this should have no bearing on the DEIS being considered, but again I will address it briefly. While there may be some studies out in the world that indicate very loud noise adversely affects day care, a child's ability to learn, or a child's ability to develop language skills; there has been no study that I am aware of that indicates that the noise caused by a few helicopters flying 2000 feet overhead (in the midst of all of the other noise associated with a city) is detrimental to anyone with regard to these concerns. While I freely admit that I know of no study that supports my following statements, I am certain they are far more true and accurate than the above. It seems to me that the yelling and screaming of kids playing together and just being kids is far louder. I further suggest that the volume at which most parents play their stereos, car radios, and TVs is much louder and far more damaging. Indoor sporting events, movies, concerts, and crowded get-togethers have a much higher decibel reading. Even parents yelling at each other, or at their kids, is much louder than the brief passing of a few helicopters at altitude. We live in a city. There is noise in a city. It is just the way it is in a city. We do not live "in the country".

- *A criticism was raised that helicopter companies are "only in it for the money".*
Again, this has nothing to do with the DEIS, but I will briefly comment. Yes, we are in it for the money. I certainly do not apologize for that. In fact, what is wrong with that? Show me a private company that isn't "in it for the money", and does everything for free. There aren't any. We are not a government agency, charitable organization, or non-profit organization. We are a private sector, for-profit, job producing, tax paying, and business supporting, capitalistic operation in the great American tradition. It is what our country was founded on, and what continues to make it great to this day. Yes, we are in it for the money; but that is not the only reason that we exist and prosper. We take care of our people, we take care of our community (even when parts of it are bent on hurting us), and we take care of the environment. This means not only the areas where our bases are located, but also the Juneau Icefield and the Tongass National Forest where we work. We are not about to do anything to jeopardize our work environment or our future. We would not last long if we "killed the goose that is laying the golden eggs".

- *Some people argued against tourism in general and wanted all tourism gone or greatly reduced, not just helicopters.*

It is both a blessing and a curse to us that Juneau is the gateway to the Juneau Icefield. The Juneau Icefield, and the Tongass National Forest of which it is a part, is a place of great and wonderful natural beauty. It exists because all of the citizens of the United States of America, through their representatives, voted to have it established, administered, and cared for. While the U.S.F.S. is the

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(cont.)

custodian of this national treasure, it is owned by all of us. It is the tax dollars of every tax-paying citizen that keeps it secure for future generations. It is not just for the pleasure and recreation of those of us who are fortunate enough to call Juneau "home". It is not just ours, it belongs to everyone; and everyone should have a right to experience this wonderful gift. Not all of our citizens are blessed with good health or the ability to hike into the Juneau Icefield. In fact, I submit that there are but a handful of people who ever venture on their own into the Icefield beyond the Gastineau Channel area. There are no roads and few trails. Even the trails do not penetrate but a few miles into the 1500 square mile Juneau Icefield. The only way for people to see that part of the Icefield is by aircraft. The only way to get to and stand on a glacier is by helicopter. The helicopters have no impact on the glaciers themselves. When we bring our citizens out to stand on the glaciers, we educate them on glaciers, ecology, and conservation. People come away with a much better understanding of this ecosystem and the need to protect it than they had before they took the tour. As a result of their experience, these people are more likely to continue to support this national treasure, and maybe even create a few new ones. Too many of us have become selfish and possessive of our "backyard", now that we are here. It is the same old tune: "Now that I am here, I think we ought to keep everyone else out", and the now infamous "Not in my backyard". Again, this Icefield and National Forest is for all citizens to enjoy, and no one should be denied access or turned away as long as the way they experience it is environmentally and ecologically sound. Helicopter operations in the Juneau Icefield leave no footprints, no trails, no litter, no structures of any kind, and no evidence that we were ever out there. I don't think the same can be said for other forms of entry into the Icefield. I firmly believe that people ought to be able to hike into the Icefield too; however, if we hikers are honest with ourselves (and I am a hiker), we leave footprints and trails that will still be visible decades after the last person walks the area. There is trash on the ground from inconsiderate people that will last virtually forever. We have a much greater impact on wildlife habits and living areas than we would like to admit. We drive them away, or even on occasion tangle with them. Think about that the next time you move toward a bear or a porcupine to get a better picture. You may not think you are making an impact on the ecosystem, and that you are the Sierra Club poster child, but just look around where you hike. You cannot hike on foot without having some major impact. Is that bad? Maybe, maybe not. Animals leave "game trails", which are not much different than ones left by conscientious hikers. They don't build structures, though, and they don't litter. Again, my point is that it is just another way to see this great Icefield that happens to belong to everyone, but is located in our backyard. We should all be able to experience it, as long as we respect it and protect it; and helicopter tours certainly do just that. As citizens of the community of Juneau, we should be grateful that we have been blessed with such a "backyard" and proud to share it with the rest of our countrymen and citizens of the world.

Thank you,



WILLIAM F. CLUTTON

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6 PUBLIC MEETING REGARDING

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11 HELICOPTER LANDING TOURS

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14 ON THE

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17 JUNEAU ICEFIELD

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20 2002 - 2006

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23 Held: Thursday, September 6, 2001

24
25 Guesthouse Inn and Suites

Juneau, Alaska

7:00 P.M. to 9:30 P.M.

CONDUCTED BY:

Ellen Hall

Foster Wheeler Environmental Corporation

Peter Griffin

Juneau District Ranger

USDA Forest Service

Don Youkey

Zone Wildlife Biologist

USDA Forest Service

Laurie Thorpe

Special Use Permit Administrator

USDA Forest Service

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closet.

And you can, of course, go out through the back and to the lobby where you came in, or you can take either door here and go down to the end of the hall, and there is an exit down there. So just in case. And these windows also open.

We have some coffee, hot tea, and some cold water in pitchers here in the back of the room, if you get thirsty. There is also a soda machine in the laundry room across the hall outside the room, I believe.

At the back, we were trying to catch everybody as you came in to have you put your name on the sign-up sheet. And if we happened to miss you, we'd really appreciate it if you would sign up maybe before you leave. It's just part of our planning record as to who was at the meeting.

Also on the back table, there was a sign-up sheet for people who want to make a formal comment, verbal comment, on the draft EIS.

We do have a court reporter here tonight who will be taking down everything that is said, and they are also recording. And I think there are a couple of other people recording here

THURSDAY, SEPTEMBER 6, 2001; JUNEAU, ALASKA
7:00 P.M.

MS. HALL: I'm Ellen Hall from Foster Wheeler Environmental. We're the contractor who has been working with the Forest Service staff to prepare the draft environmental impact statement on the landing tours on the Juneau Icefield, draft environmental impact statement 2002 through 2006.

This was something of a combined effort between the Forest Service and Foster Wheeler as the contractor. They wrote some of the parts. We wrote some of the parts.

I'm going to serve as moderator tonight for the meeting. So I want to start out and cover a few housekeeping issues and make sure everybody knows what sorts of facilities we have available here in the room, and then I'll explain the way the meeting is going to work tonight.

First, just on a number of housekeeping issues, the restrooms are down the hall that way, and in case of any emergency, there are three doors out of this room. There is one there, one there, and one here in the back. Don't take the double doors, which only go into the

tonight as well. But the court reporter's record will be part of the public record.

So if you want to make verbal comments, we'd just ask that people sign up in the back so we have a sense of how many people want to comment, so we can try to keep our timing right.

If you signed up and changed your mind during the course of the evening, then you don't have to speak. And if you decide that you'd like to speak before the end of the evening, then we'll just add your name to the bottom of the list.

On the side tables over here, we have hard copies of the draft EIS, and we also have some EIS copies on CD.

We also have some comment sheets, if you care to pick one up, and either fill it out tonight, or take it home and fill it out and mail it in later to submit written comments on the draft EIS.

And there are some posters over here on the wall that show the various alternatives. And there is also a copy of our mailing list over there. Most of you, if you got a copy of the EIS in the mail, this is the same mailing list we used for that process. But if

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1 anybody wants to add their name to the list or
2 check or correct their spelling, whatever, there is
3 a list over there so you can do that before the end
4 of the evening.

5 Here is our plan for this evening.

6 We plan to start -- we'll make just a brief
7 presentation about the EIS, and then we're going to
8 open the floor for questions. If people have just
9 questions that they want to ask about how something
10 was done or why it was done or ask for clarifying
11 points, then we'll try to answer those questions.

12 And following the
13 question-and-answer period, then we'll open the
14 floor for comments. I'll get the comment sheet
15 from the back of the room, and then we'll start
16 going through the people who have signed up, one
17 through however many people we have signed up.

18 So, any questions at this point,
19 just on the process or the plan?

20 (No response)

21 MS. HALL: Okay. Great.

22 Well, thanks very much for coming.

23 I introduced myself. Also here at the front table
24 are the Forest Service people who were key in
25 preparing the draft EIS: Laurie Thorpe, who is the

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1 Then we have Alternatives B, C, D,
2 E, F, and G, that basically go -- B goes back to a
3 number of permitted landings which is comparable to
4 what actually occurred in 1994, and so is fewer
5 landings than currently, and on up through
6 Alternative G, which allows quite a bit more
7 landings than are occurring right now.

8 There are also some other aspects
9 of the alternatives that address things like what
10 days of the week or how many days a week the
11 landings would be allowed; what other activities,
12 such as dogsledding or snowmobiling or other things
13 might be allowed on the icefield associated with
14 the landings, and hours of operation.

15 And, essentially, go from
16 Alternative B, which has, as I said, landings
17 associated with the same level that occurred
18 actually in 1994 and some other restrictions. It's
19 a more restricted alternative, and things kind of
20 progress up through Alternative G, which allows the
21 most number of landings, allows landings in some
22 new areas that are not currently open to helitour
23 landings, and has fewer restrictions in general.

24 The EIS -- we do have a number of
25 seats up in the front, so don't feel like you have

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1 special use permit administrator; Pete Griffin, the
2 Juneau District Ranger, who will be the deciding
3 official in this case; and Don Youkey, the zone
4 wildlife biologist who prepared the wildlife
5 analysis in the EIS.

6 I'm going to take just a minute to
7 cover a couple of the issues that we at Foster
8 Wheeler worked on, and then I'm going to have Don
9 speak a little bit about the approach to wildlife,
10 and then Pete is going to have a few words to help
11 structure comments and questions and things this
12 evening, and talk about our intent here. Then
13 we'll go to questions. You all get your turn.

14 So those of you who have had a
15 chance to really look at the EIS I think can see
16 the way it was structured. We had one alternative,
17 Alternative A, that is called No Action, which
18 involves not having special use permits that allow
19 helicopter landings on the glacier.

20 And that means no landings, and no
21 other activity associated with landings, although
22 the Forest Service doesn't have any jurisdiction
23 over flights that do not land. And so we really
24 don't know how many overflights there might be if
25 no landings were allowed.

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1 to stand in the back. We have got some space up
2 here.

3 The EIS is structured around four
4 issues that were raised during the scoping
5 period -- not only the scoping comments and scoping
6 period for this EIS, but scoping that was done
7 associated with earlier EISs, and also comments
8 that have come up during the mediation process that
9 was going on last summer and into the fall, and
10 some of the committee meetings that have been going
11 on at the City and Borough of Juneau for quite some
12 time.

13 And we reviewed and included a lot
14 of that information in determining what the issues
15 are that would be addressed, and came up with four
16 issues: Impacts on residents of Juneau, which
17 mostly focuses on the issue of noise. Impacts on
18 recreation, which again focuses a lot on the
19 negative impacts of noise on people who are, for
20 example, out hiking, and also on the positive
21 attributes associated with giving people the
22 opportunity to participate in that type of
23 recreation, that is, taking the tours and going out
24 to the icefield.

25 The impacts on wildlife, and,

3 (Pages 6 to 9)

1 finally, impacts on new areas, which is associated
2 with the fact that some of the alternatives open
3 some new areas to landings, and other alternatives
4 do not open those new areas.

5 So that is basically the way the
6 EIS is structured, around those four issues, and
7 around the Alternatives A through G.

8 And for the analysis of noise in
9 terms of impacts particularly on residents and on
10 recreationists, our focus there was in using
11 studies that have -- one that was arranged by the
12 Forest Service, and another study by Michael Baker
13 and Associates and their subcontractors, and I
14 think there have been a couple of studies there
15 that have been done for the CBJ.

16 And we used a lot of that
17 information, and reiterated some of it, and tried
18 to demonstrate how -- what the situation is with
19 respect to residents, and also with respect to
20 recreationists.

21 And I think that's all I'm going
22 to say at this point about that issue. I want Don
23 to speak for a couple of minutes about the wildlife
24 issue, and how we address that, and then we'll go
25 to Pete for a couple of minutes.

1 MR. YOUKEY: Thank you, Ellen. So
2 on this type of analysis for wildlife, what we
3 usually do is look at all the species in the
4 project area. We just list them out, and then look
5 at two things. We look at the direction we have
6 from our forest plan that guides us generally on
7 any Forest Service projects on the national forest.

8 And then we also look at -- from a
9 biological perspective, look at what potential
10 impacts we expect. Using that process, we narrowed
11 it down real fast to, oh, about half a dozen
12 species, where few individuals may be impacted by
13 flights or landings, and then even further, to the
14 mountain goat, and that is really the only species
15 that occurs year-round, and most all of its habitat
16 is potentially impacted by overflights or landing
17 sites.

18 Along those lines, we started a
19 monitoring program in 1999, looking at behavioral
20 responses to goats. There is very little
21 information from the literature on goats, and even
22 less on impacts from overflights. We modeled our
23 monitoring effort off of two studies that have been
24 done, both of them in Canada, looking at
25 helicopters and mountain goats.

1 And what we found after the first
2 year is that there is very -- our goats up here
3 have little response to overflights relative to
4 what the findings were in the Canadian studies. We
5 found the same pattern last year and again this
6 year.

7 I haven't summarized the data yet,
8 but we put a much larger effort into collecting
9 data this year, and we are seeing the same
10 patterns. That data is presented in the EIS, I
11 think on page 4-22. There is a table there. But,
12 essentially, we're seeing the same patterns this
13 year, and have a much larger sample size.

14 The other type of data we collect
15 is simply population surveys, population size. If
16 helicopters are having a huge impact upon
17 populations, you'd expect a population decline,
18 especially considering they have been operating
19 here since 1984, although in a much smaller
20 capacity in the earlier years. But there have been
21 quite a few overflights here for quite a few years.

22 What we found there essentially
23 appears to be stable populations. Our data from
24 the early '70s and '80s is not excellent, but it
25 appears that the populations are about even, and

1 possibly even have increased in a couple of areas.

2 The third type of data I looked at
3 is habitat use. I looked at the use of the animals
4 relative to the flight paths and landing sites.
5 Again, I don't see any displacement of habitat use
6 relative to -- there are quite a few flight routes
7 up here that are pretty commonly used, and we still
8 have goats using the habitat underneath those
9 flight routes.

10 So based on all that, as long as
11 our stipulations we have set forth previously and
12 are proposing again this time are met, I think the
13 goat population will do just fine.

14 MS. HALL: Okay. Thanks, Don.
15 Pete, would you like to say a few
16 words?

17 MR. GRIFFIN: Yes. I probably
18 should have led this off, but, first thing, thanks
19 for coming tonight. I know it's another meeting,
20 another night, and folks' time is valuable, so
21 thanks for coming out.

22 I'm here for two things, really.
23 One, if you have any questions on the draft
24 environmental impact statement, we'd sure like to
25 hear them. And if we can clarify anything, we sure

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1 will.

2 The second thing that I'd like to
3 hear is after we get done with the questions, I'd
4 like to hear what you think about the EIS, about
5 the alternatives, and about the mitigation measures
6 in the alternatives.

7 And we may not be able to get that
8 all in public testimony tonight, but I sure would
9 appreciate something in writing from you folks
10 specific to the alternatives: What I like about
11 this alternative, what I don't like about this
12 alternative. What I like about this mitigation
13 measure, what I don't like about this mitigation
14 measure.

15 Because my final decision is
16 probably going to take one of the alternatives, or
17 a variation on one of the alternatives, and combine
18 it with some mitigation measure from one of the
19 other alternatives.

20 So if I get your ideas on
21 everything that is in there, I'll be able to put
22 together a lot better decision than otherwise.
23 Sometimes in the past we have just had folks say,
24 "We don't like the alternative, your preferred
25 alternative. You should pick something else."

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1 That doesn't give us a lot to go on. So the more
2 information you can provide us, the more detailed
3 information, the better.

4 The comment period does end on
5 September 24th, so I urge you to get your comments
6 in by then. Thanks.

7 MS. HALL: Okay. Thanks, Pete.

8 At this point, then, we'll go
9 ahead and open to questions, and I guess to
10 differentiate a little bit between questions and
11 comments, I think questions are really your chance
12 to ask us to tell you things, and comments are your
13 chance to tell us things.

14 So I'd like to kind of start with
15 questions. If people would like to ask about the
16 process or how certain analyses were done or where
17 the data came from or whatever, now is the time.
18 Yes?

19 MR. DIPPOLD: Why did you limit
20 significant issues to only four somewhat trivial
21 matters?

22 MR. GRIFFIN: Well --

23 MS. HALL: Why four issues --

24 MR. DIPPOLD: I guess I could make
25 comments on this under my comments, but safety,

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1 fuel usage, helicopter usage, base expansion -- I
2 can go on with a major list of significant --
3 really significant issues that need to be
4 considered if you are going to decide to increase
5 this.

6 And, in fact I looked for "safety"
7 in the index, and you don't even have the word in
8 there.

9 MS. HALL: Okay. Let's give Pete
10 a chance to answer the question about how did we
11 come up with the four issues.

12 MS. BATCHELOR: Can you ask him to
13 identify himself for the record?

14 MS. HALL: Oh, I'm sorry.

15 MR. DIPPOLD: Okay. Ronald
16 Dippold, about a 35-year resident of Juneau.

17 MS. HALL: Okay. Thanks very
18 much, and I forgot to make that point. If you
19 would give your name and be sure to speak up, then
20 we'll be sure and be able to identify the
21 questioner or commenter on the record. Okay.

22 MR. GRIFFIN: We did pretty
23 extensive scoping, Ron, and we got a lot of input
24 from folks. And the big issues that people told us
25 about were the effects of helicopter noise on the

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1 recreational experience, the effects of helicopter
2 noise on their homes, the effects of helicopter
3 noise on wildlife. And then the fact that there
4 were some new areas proposed to go into.

5 Those were the dominant themes
6 that came to us from the public. So we sorted
7 through them and said, "These are the issues that
8 we need to address in this EIS. Our decision is
9 going to take those things into account."

10 MR. DIPPOLD: Those were the
11 dominant themes based on route selection, when they
12 were talking about it three or four years ago, not
13 the dominant theme for expansion. If there was any
14 scoping, you probably talked to the helicopter and
15 the boat people. You didn't talk to the public. I
16 didn't see any --

17 MS. HALL: Okay. Well, I think
18 that we won't get into the debate, but I appreciate
19 the question and the comment.

20 Yes. Right here?

21 MR. HINKLEY: My name is Everett
22 Hinkley. I live in Juneau here. I have a question
23 for Don.

24 On table 4-22, the goat response
25 to helicopter overflight, how are the distances

5 (Pages 14 to 17)

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1 between the goats and helicopters measured in this
2 particular instance in the book here?

3 MR. YOUKEY: In '99 they were
4 mostly estimated. We were using laser
5 rangefinders. In 2000, we got a rangefinder that
6 would actually get out to a couple of kilometers.
7 So it was a combination.

8 And, again, this year, there is no
9 2001 data there, but we were using a rangefinder
10 that got out to a couple of kilometers, and would
11 actually measure down to submeter accuracy.

12 MR. HINKLEY: How was your GPS
13 analysis working for your noise/goat interaction?

14 MR. YOUKEY: What do you mean?

15 MS. HALL: Sounds like we need a
16 clarification on the question.

17 MR. HINKLEY: Well, haven't you
18 been collecting GPS data on --

19 MR. YOUKEY: I haven't analyzed
20 that data yet. I think it's going to work pretty
21 well. Yes. I think Everett is referring to stuff
22 we're collecting this year, which is an additional
23 study looking at some more specific behaviors, and
24 in order to free up -- using a laser rangefinder
25 takes a lot of time. It takes basically one

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1 lost a bit.

2 The intent, certainly, was to
3 address that aspect in the impact to residents, and
4 the fact that -- where the main issue that was
5 raised is the issue of the noise, and there is
6 quite a bit of focus on noise and the annoyance
7 factor of noise, and the kinds of issues people
8 have raised, and the statements that they have made
9 about the fact that it has -- the helicopter
10 flights and the noise have a very negative impact
11 on their lives. And so that was our strategy in
12 addressing it.

13 And so if I can ask you if there
14 are -- I take it you are thinking there are other
15 ways to address it, or other things that should be
16 included?

17 MS. HART: Yes. I'm wondering if
18 you have reviewed the Forest Service Handbook for
19 that section. There are very specific things
20 relating to lifestyles, aesthetics, and amenities
21 to forest lands, attitudes, beliefs and values,
22 impacts on social organizations, land use patterns,
23 displacement of recreationists.

24 There are some civil rights issues
25 that I think you could have found if you had

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1 person.

2 We equipped a helicopter with a
3 GPS, so essentially we can use that to measure
4 distances, as opposed to the rangefinder. We were
5 actually collecting with both methods this year to
6 make sure we had good data. But we haven't
7 analyzed that data yet.

8 MR. HINKLEY: Thanks, Don.

9 MS. HALL: Okay. Right here?

10 MS. HART: If I'm reading the
11 Forest Service Handbook, Chapter 32, correctly, it
12 says that "If the action or its alternative could
13 have a significant effect on the quality of the
14 human environment, a detailed social impact
15 analysis is mandatory, and findings should be
16 included in an EIS."

17 And I don't see any reference to
18 any social impact analysis in this.

19 MS. BATCHELOR: Your name, please?

20 MS. HART: Karla Hart, H-A-R-T.

21 MS. HALL: I'll take a bit of a
22 stab at that, and this is something that we have
23 talked about a little bit, the fact that perhaps
24 some of the analysis of social impact is -- it's
25 not under a heading called that, and perhaps gets

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1 looked. There is a reminder list of social
2 variables that includes recreation preferences, the
3 degree of isolation, privacy, relationship of
4 lifestyle to infrastructure and forest resources --
5 the list goes on.

6 And I looked through your
7 document, and I wasn't able to find any reference
8 that whoever wrote this document ever looked at the
9 Forest Service Handbook and that section.

10 MS. HALL: Okay.

11 MR. GRIFFIN: We'll take a lot
12 closer look at that, Karla.

13 MS. HART: Thank you.

14 MS. HALL: Okay. Any other
15 questions? Right here?

16 MS. WILLSON: Hi. My name is
17 Sarah Willson, S-A-R-A W-I-L-L-S-O-N. And my
18 question, I think, is related to Karla's.

19 I have not had time to look at
20 this thing, but I wondered how you were able to
21 quantify the impact of the increases or decreases
22 in flights on residents and/or on recreation.

23 Mr. Youkey spoke about the impact
24 on goats, and how the numbers didn't change, and so
25 on. But how did you quantify the impact on

6 (Pages 18 to 21)

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1 residents and/or the impact on recreation from 1994
2 through 1999 or 2000?

3 Thank you.

4 MS. HALL: Unfortunately, I have
5 to say we really have not quantified that, and
6 can't really quantify that. In fact, when we talk
7 about the impacts of Alternative A, the no-action,
8 no-landing alternative, we are not in a position to
9 quantify that, either, because we don't -- no one
10 has been taking, for example, a base line survey in
11 1980 and every five years thereafter, for example,
12 that would show the level of resident satisfaction
13 with their environment all over those periods, so
14 that we could actually quantify what percent of the
15 people were happy in one decade versus the number
16 of people who are happy now, or something of that
17 type.

18 And that is, I think, what you are
19 getting at, which would -- I think that is what you
20 are getting at, how you quantify that. And the
21 fact is that we can't quantify everything. That's
22 one of the things that we really didn't try to
23 quantify.

24 We also don't -- we have talked to
25 the CBJ, for example, about their complaint line or

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1 Service, from ADF&G, and other wildlife biologists?
2 Is it in the public record? If so, can we get
3 copies of it before the comment deadline?

4 MR. YOUKEY: Yes. Earlier surveys
5 were conducted by the Alaska Department of Fish and
6 Game. So you'd have to go to them for that. I
7 have got summaries of that data. I could share the
8 numbers with you. In fact, I think they are in the
9 EIS.

10 MR. RORICK: I mean comments
11 specifically on your provisions which differ
12 significantly from the code study. Have you heard
13 from other biologists at other agencies? Have they
14 commented on it? I'm sure they are going to be
15 putting in comments on this process. If you have
16 them, I would like to see them.

17 MR. GRIFFIN: I don't think we
18 have anything in writing from any of the other
19 agencies right now, Mark, on the other studies, on
20 the data.

21 MS. HALL: Yes?

22 MS. HARRIS: My name is Pat
23 Harris.

24 Don, I was just wondering if you
25 had compared the goat population to areas that have

Page 23

1 hot line. And we have things -- we have reviewed
2 the trail records, and there are a few pieces of
3 information around where people have an opportunity
4 to say, "I like this," or "I don't like this." But
5 none of that provides any sort of a scientific
6 basis for saying that things are better or things
7 are worse, other than the fact that a lot of people
8 are saying things are worse.

9 MS. WILLSON: Thank you.

10 MS. HALL: Okay. Over here?

11 MR. RORICK: I had a couple
12 questions on the wildlife --

13 MS. HALL: I'm sorry. Could you
14 give your name, first, please?

15 MR. RORICK: Mark Rorick,
16 R-O-R-I-C-K. I'm with the Sierra Club. This is on
17 the wildlife study. Has it been peer-reviewed? Do
18 you have other agencies' comments? Are they in the
19 public record, and can we get copies of them?

20 MR. YOUKEY: I guess there are
21 several aspects of that. Aerial surveys are
22 standard procedure used all over the country. It's
23 not really a study. So, yeah, I take that --

24 MR. RORICK: Have you received
25 correspondence from the US Fish and Wildlife

Page 25

1 seen no impact from overflights?

2 MR. YOUKEY: I really would like
3 to do that, and had planned on doing that. I
4 have -- may have enough data -- it's a real
5 challenge to get that type of information.

6 MS. HARRIS: That would be really
7 useful, I think.

8 MALE SPEAKER: What was the
9 question? It was kind of hard to hear the question
10 back here.

11 MS. HARRIS: I just wondered if he
12 had any data from areas that were not flown over at
13 all, un-aerially used areas.

14 MR. YOUKEY: That's a great
15 question. It's a real complex issue because we
16 have -- you know, every area has microclimates.
17 You've got weather and -- the factors that impact
18 goats the most are typically weather, actually,
19 winter severity, and then predation. The Juneau
20 Icefield probably has fewer predators because --
21 being right nestled next to Juneau, although there
22 certainly are wolves up there.

23 And thirdly, hunting, human
24 predation, which has been -- that area has been
25 closed for about 15 years now. But, yes, it would

7 (Pages 22 to 25)

1 be really interesting to look at.
2 MS. HARRIS: How about Fish and
3 Game data? Do they have anything that you could --
4 MS. HALL: Can you hear the
5 comment in the back?
6 MALE SPEAKER: Yes.
7 MR. YOUKEY: Unfortunately, Fish
8 and Game data -- as I said earlier, they have data,
9 but it's not real precise. So it would be hard to
10 make those comparisons. I think they are worth
11 making anyway just to see if we are in the
12 ballpark, which I feel we are.
13 I have done surveys of Prince
14 William Sound, Yakutat, as well as down here,
15 Skagway, and the Juneau Icefield, Chilkat range. I
16 feel the populations are about where they should
17 be, but that is a totally qualitative opinion.
18 MR. GRIFFIN: Pat, are you talking
19 about population data or goat response to
20 helicopter noise data?
21 MS. HARRIS: I'm talking more
22 about population data. When he says the population
23 is stable or increasing, I was wondering if he had
24 other data to compare it to.
25 MS. HALL: Okay. Right here?

1 MS. CARLS: Becky Carls. If you
2 are wondering how to quantify the effects on
3 residents over time, one simple way to do it, is to
4 just check with residents that have lived here for
5 the last ten years, and see with what they think of
6 how things have gone in the last ten years. That
7 should give you enough background, before things
8 have increased, compared to now.
9 And then on page 2-8, I have a
10 question. And that's how you determined the
11 minimum landing distance from ends of trails, and
12 whether or not you should be calling the West
13 Glacier Trail an end trail?
14 MR. GRIFFIN: I hesitate to say
15 "arbitrary," but we just looked at what seemed to
16 make sense, what distance was an appropriate
17 standoff distance from the end of a trail. And
18 there are some differences between the trails, and
19 the historical use areas, too.
20 MS. CARLS: Because one of the
21 things, when you are getting into a hard surface,
22 like the glacier or rocks and stuff, is that the
23 noise just really gets bounced off in there, and
24 you might need more than a half mile for it to not
25 be real hard on somebody's ears.

1 MS. THORPE: Just to help clarify
2 the difference between the West Glacier Trail and
3 the McGinnis Trail, McGinnis is not a managed
4 trail. That's a route that people have picked and
5 chosen over time. It's not on our managed trail
6 system, so that is why we didn't include that as a
7 trail.
8 MS. HALL: Okay.
9 MS. LEVINE: My name is Joyce
10 Levine. I was just wondering if the wildlife study
11 included birds and raptors in their population?
12 MR. YOUKEY: Again, we looked at
13 the total suite of species in the project area, and
14 focused on the ones that we anticipated impacts on.
15 That's why, pretty much -- there are a half dozen
16 species mentioned in the EIS, and the ones that
17 have the most potential impact are the ones using
18 the alpine areas. So we didn't spend a lot of time
19 on birds, raptors.
20 MS. LEVINE: How much time did you
21 spend?
22 MR. YOUKEY: In my mind, enough to
23 rule them out as being impacted. Other studies
24 done on noise and aircraft overflights and birds --
25 I guess it depends on the context, but I reviewed,

1 you know, dozens of studies, and looking at the
2 context we have here, I made a decision that they
3 were not going to be impacted.
4 MS. HALL: If I can ask a
5 clarifying question, do you have something
6 particular in mind that you are concerned about, or
7 thing that --
8 MS. LEVINE: Well, eagles are
9 notorious for soaring over the glacier, and I'm
10 just wondering -- we'll, I can't imagine that it
11 would not have an effect on their flight
12 patterns --
13 MS. HALL: Okay.
14 MS. LEVINE: -- with helicopter
15 landings.
16 MS. HALL: On flight patterns, or
17 on collisions, or --
18 MS. LEVINE: Yeah, on where they
19 were going, you know, where they were soaring, and
20 the effect that that had on them.
21 MS. HALL: Okay.
22 MS. LEVINE: On their nests and in
23 the area.
24 MS. HALL: Okay. Thank you.
25 Right here?

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1 MS. CARLS: Becky Carls again. If
2 I could comment on that, as an incidental note, I
3 live on Fritz Cove, and I have often seen the
4 eagles do their thing normally, and then be
5 interrupted when there is a lot of traffic that I
6 also find very annoying. We have flights going
7 both directions at the same time, and it has just
8 got incredibly noisy.

9 You'll see the birds just all get
10 up and start making a lot of noise, too, and flying
11 around making a racket, and saying "What's going
12 on?"

13 It's disturbing to them in certain
14 specific instances, I think. And I have lived
15 there long enough to be watching eagles a long
16 time.

17 MS. HALL: Okay. Thank you.
18 Right here?

19 MR. RORICK: Well, I have thumbed
20 through this a few times, and I'm not an expert on
21 this DEIS yet, but I have not found a listing of
22 the precise location of current enclaves, and the
23 number of parties, at least during the previous
24 year, that were actually landing at these enclaves.

25 I see a table that has minor

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1 associated with the minor developments that they
2 requested?

3 MS. THORPE: Yes.

4 MR. GRIFFIN: Basically, what
5 we're doing, Mark, is where we have a concentrated
6 land area, we are calling that the equivalent of a
7 minor development. It doesn't mean there is a
8 building there, necessarily. In some cases there
9 is a weather port and a guide there. In some
10 cases, it's just a flat spot to land.

11 MS. HALL: Okay. Yes?

12 MR. RORICK: In the listing of
13 party size and number of landings at these enclaves
14 by site, you can go up to 100, I believe, in the
15 land use designation. I assume none of them are
16 approaching that.

17 MS. THORPE: In the EIS -- I can't
18 say at what page it is -- but there is a table that
19 shows how many landings per day, per site, could
20 occur at an enclave.

21 MR. RORICK: Right. I was
22 wondering what was actually happening to these
23 enclaves? I haven't found that in the EIS. I know
24 there is a table there that sets out the standards
25 and the guidelines, but it hadn't been explained in

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1 developments. There are seven or eight places on
2 there where minor developments are requested.

3 Do those coincide with enclaves?
4 How many enclaves are up -- are there up there, and
5 exactly where are they?

6 MS. HALL: Laurie?

7 MS. THORPE: The enclaves that are
8 up there right now consist of -- well, that were up
9 there for this summer -- was a dogsled mushing camp
10 on the west branch -- middle branch of the Norris
11 Glacier? Middle branch.

12 SPEAKER: Middle branch.

13 MS. THORPE: Other enclaves are on
14 the Mendenhall Glacier. That is the lower site
15 where Temsco has a little weather port, and they
16 moved that to an upper Mendenhall site in the
17 summer, where they do the same activity, where
18 groups of people get out and explore the glacier
19 environment. That's on the eastern side of
20 Mendenhall Glacier.

21 On the western side is a small
22 enclave where a trucking activity takes place out
23 of a small weather port, as well.

24 And that's it for enclaves.

25 MR. RORICK: So they are generally

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1 the DEIS what exactly is occurring at the enclaves
2 in terms of those numbers.

3 MR. GRIFFIN: Currently?

4 MS. THORPE: Currently.

5 MR. RORICK: Yes.

6 MS. HALL: Okay. Thank you. And
7 you are right. It doesn't say what is occurring in
8 each of those areas.

9 MR. HINKLEY: I have a question.
10 This is Everett Hinkley, and I have a question for
11 Pete. This regards the permitting process that is
12 addressed on page 4-5. It says that "Because
13 permits for individual helicopter companies will be
14 awarded through a prospectus and bid process
15 following this decision, it is not possible to
16 accurately predict the number of helicopter flights
17 over specific populated areas."

18 I wondered how does this process
19 work, the prospectus and bid process, and will
20 residential noise impacts be one of the concerns
21 that would be an impact in this process?

22 MR. GRIFFIN: Yes. When we make
23 the decision, and we determine how many landings
24 are going to be available, we will -- and we'll
25 probably determine on a glacier-by-glacier basis

9 (Pages 30 to 33)

1 how many landings.
2 What we'll do then is go to
3 companies that have expressed an interest in
4 getting permits for landings. We put together a
5 bid package or prospectus. Basically, what we'll
6 be asking any interested company is: "How many
7 landings are you proposing?" Or, you know, "What
8 share would you like of this pie?"

9 We're going to ask questions like,
10 "How much are you willing to pay for this
11 privilege? What type of tour do you offer to your
12 clients? What has been your past record? How well
13 have you served your clients in the past?"

14 We're also going to have criteria
15 on that: "How do you propose to reduce noise
16 impacts, in particular, to residential areas, to
17 residents of Juneau?" And I guess some other
18 factors may be, "What steps do you take as far as
19 wildlife interpretation? What steps do you take
20 for safety that may go beyond the FAA
21 requirements," and things like that.

22 We haven't sat down and figured
23 out exactly which of those evaluation criteria
24 we're going to use, and there may be others, too.
25 Nor have we sat down and weighted them -- not yet,

1 anyway. So that is coming up.

2 MS. HALL: Okay. I think I have
3 one other one here.

4 MR. REGES: My name is Robert
5 Reges. I have three questions or three topics I
6 wanted you to discuss, Pete. Since you are on
7 money, I'll start with that one.

8 In Appendix A, at A-2, you say
9 that currently you are assessing an outfitter guide
10 special use fee. What is the amount of the fee,
11 and what is it used for?

12 MR. GRIFFIN: How much is the fee,
13 Laurie?

14 MS. THORPE: We collect \$2.55 per
15 client that lands on the icefield.

16 MR. REGES: Is that like a head
17 tax, \$2.55 per person?

18 MS. THORPE: It's a flat fee per
19 person.

20 MR. REGES: Okay. And what is the
21 money used for?

22 MS. THORPE: It goes into the Land
23 and Water Conservation Fund. That's the authority
24 it's collected under. It goes to Washington, D.C.
25 We get back 15 percent of that to the Juneau Ranger

1 District for administering the special uses
2 program.

3 We also have a fee demo program
4 that collects 50 cents in addition per person that
5 lands on the Juneau Icefield under the commercial
6 tours. That money has been spent on development of
7 an interpretive brochure for icefield customers,
8 the ones that land there, as well as helping to
9 fund some of the mountain goat studies that have
10 been going on.

11 MR. REGES: And just to wrap up on
12 fees, after this bidding process, will you still be
13 going back to that Land and Resource Management
14 Fund? Is that where the money has to go in the
15 future?

16 MR. GRIFFIN: Yes. That hasn't
17 changed -- although that may change in the future.
18 We don't know.

19 MR. REGES: But you anticipate you
20 will get 15 percent of it?

21 MR. GRIFFIN: Yes.

22 MR. REGES: The second topic has
23 to do with Coastal Zone Management, the interaction
24 or lack thereof. That's on page 1-23 and 1-24.
25 Basically you say that under some memorandum of

1 understanding, normally this use would not be
2 subjected to Coastal Zone Management.

3 My question first is: Are you
4 going to subject yourself to Coastal Zone
5 Management review?

6 MR. GRIFFIN: I'll be making a
7 determination of whether or not, for one thing, our
8 project affects the coastal zone resources under
9 the Coastal Zone Management Act and the Alaska
10 Coastal Management Program.

11 If it does, I'll determine whether
12 or not we're consistent with the enforceable
13 policies of the Alaska Coastal Management Program.
14 And if I make that determination, that is subject
15 to review by the state. And they will --

16 MR. REGES: So you are going to
17 make your own consistency finding?

18 MR. GRIFFIN: That is the way that
19 works.

20 MR. REGES: Under the MOU that you
21 have now?

22 MR. GRIFFIN: Yes.

23 MR. REGES: And then the third one
24 was on social encounters. When I challenged you
25 last winter on your renewing of the permit, you

1 informed me under Appendix B -- these are under
2 your ROS standards under Appendix B -- you informed
3 me that you did not consider an overflight of a
4 helicopter to be a social encounter to a person on
5 the ground. Is that still your position as you
6 work through this EIS?

7 MR. GRIFFIN: Yes.

8 MR. REGES: See you in court.

9 MR. GRIFFIN: Do I have to talk to
10 you anymore?

11 MS. HART: That sort of follows
12 up -- I couldn't tie the Appendix B recreation
13 opportunity spectrum into anything. There is the
14 LUD map in the front, but there is nothing -- I
15 couldn't tie them in together. I didn't really
16 understand why Appendix B was there because it
17 doesn't tie into any explanation in the text.

18 And throughout the recreational
19 opportunities spectrum classes, there is discussion
20 of sounds of human activity, which I would assume
21 that a helicopter would be a sound of human
22 activity, as opposed to a bird or something.

23 And so throughout these, there
24 is -- "sound of human activity" seems to be the
25 primary mention under remoteness, but I couldn't

1 semi-primitive classifications is being used in the
2 two land use designations up there. And that would
3 be nice.

4 MS. HALL: Okay. I think we'll
5 take that as kind of a comment of things that are
6 not clear, and we may need to provide another map
7 and a better correlation between the land use
8 designations and the recreation opportunity
9 spectrums.

10 MR. DIPPOLD: Ron Dippold. Two
11 last questions. I see nothing in the whole EIS
12 that says how many ships, boats, barges, whatever,
13 hotels, or busses are involved in Alternative A, to
14 A, B, C, D, E, F, G -- how many differences in the
15 ships that come in, and how many more miles on the
16 busses, and how many more are needed to run around
17 our streets, the impact of those. I don't see that
18 anywhere.

19 And the other question -- and then
20 I'll shut up. All the EISs I have seen for the
21 last 20-some years have eagle nest trees plotted,
22 and I'm sure they could do it on these maps. These
23 are pretty good maps, right? But they should have
24 eagle nest trees plotted on them.

25 MS. HALL: Thank you. They are.

1 tell where we were in this spectrum in any of the
2 LUDs, or how any of it tied in together.

3 MR. GRIFFIN: We have -- do we
4 have a recreational opportunity spectrum map in the
5 DEIS?

6 MS. THORPE: It isn't in the DEIS.
7 We could put it in the DEIS. It is quite similar
8 to the land use designation map, as far as the ROS
9 goes.

10 MS. HART: But I don't know
11 which -- when are --

12 MS. THORPE: In the explanation or
13 description of the land use designation, it does
14 tell what recreation opportunity spectrum is the
15 goal to achieve in each land use designation, and
16 that is for the primitive and the remote
17 recreation, and semi-primitive ROS, and the
18 semi-remote recreation. Those are the two
19 primary --

20 MR. RORICK: But there is some
21 slack in there, also. You can have a
22 semi-permanent -- I believe, even in a wilderness
23 area in some cases, but you also have these
24 nonmotorized and motorized ROSSs. There is no map
25 or anything dealing with which one of those

1 MR. DIPPOLD: Okay. One map has
2 it? Okay. I take that one back then.

3 But was that in here, on busses
4 and the impact and ships, the number of cruise
5 ships? Because we want to reduce those, but I
6 didn't see it in here.

7 MS. HALL: No. There, in fact, is
8 not anything in there about whether cruise ships
9 would -- let me ask you a clarifying question. Are
10 you thinking Alternative A versus the other
11 alternatives would have --

12 MR. DIPPOLD: You are correct,
13 because you bring it in. You mention about how
14 it's going to affect the cruise ships in here. I
15 read it someplace in here. You know, you get so
16 many that come off of each cruise ship, 20 percent
17 or 30 percent. So what if you are back to A and
18 you don't have any? Is that going to affect the
19 number of cruise ships? Because it's going to
20 definitely going to affect the number of busses
21 that are out here garbaging up the highway.

22 MS. HALL: Okay. We'll think
23 about that. I'll say about Alternative A, we don't
24 have a lot of quantified information about it,
25 because we really don't have a good idea about what

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1 would happen if there were no landings, and, for
2 example, the percent of cruise ship passengers who
3 might choose to take a fixed-wing flight or a
4 helicopter flight that didn't land, or if they
5 would skip the icefield and stay in town, or go on
6 the river trip, or do some other activity.

7 We don't have a -- we really
8 didn't feel like we had a way, hypothetically, to
9 figure out what people would do if the opportunity
10 wasn't available.

11 MR. DIPPOLD: Okay. That's the
12 part -- I think that's part of that social impact
13 that Ms. Hart was talking about.

14 MS. HALL: Okay. Over here again?

15 MR. RORICK: This is Mark Rorick
16 again. I have one more thing on my list of things
17 I thought should have been in the DEIS that wasn't,
18 or that I haven't found yet. I'll qualify that.
19 They might be there, but I didn't see them.

20 There seems to be no
21 quantification of the number of non-landing
22 flights, both flightseeing and some kind of handle
23 on the other kind of flights. This is critical in
24 addressing cumulative impacts of the permitted
25 flights to the whole situation that people face in

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1 But I really won't be able to base
2 a decision on that report, particularly if
3 satellite heliports are recommended, because they
4 are not in existence yet. So I can't base a
5 decision on what might be speculation.

6 For example, I can't say this
7 year, next two years, we're going to have X number
8 of flights, and then, in two years, when these
9 heliports are built, the number of landings is
10 going to be three times the amount. I can't do
11 that because it's speculative.

12 When we get the final report, and
13 the CBJ sits down with us and says, you know, "This
14 looks like this might be a good solution for noise
15 problems. What can we do?" At that point, we
16 would have to change the decision I'm going to make
17 in this EIS.

18 So we would have to do some
19 additional environmental analysis to take a remote
20 heliport site into account, and that may be
21 required before one is built. So --

22 MR. QUIGLEY: So is it a matter of
23 including the wording "analysis" in the EIS?

24 MR. GRIFFIN: Yes. Environmental
25 analysis can take several different forms. It can

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1 the neighborhoods and in recreational areas in the
2 city and borough.

3 MS. HALL: Okay. Some of that is
4 addressed in the discussion of cumulative impacts,
5 but I think you are right in terms of our not
6 having, like, 100 percent. We don't have a firm
7 count of how many flights there are altogether of
8 all types to say for the landing tours in the
9 context of the total flight activity. We don't
10 have those numbers.

11 Over here?

12 MR. QUIGLEY: My name is Dylan
13 Quigley. In reference to the -- at the outset, if
14 the CBJ does go with having satellite heliports, it
15 says here that additional environmental analysis
16 may be required.

17 Would this EIS already have been
18 enacted, and then would putting that analysis in
19 the future regarding satellite heliports take on
20 EIS status, with the public process, too?

21 MR. GRIFFIN: That's a good
22 question. The contractor's report is due to CBJ
23 sometime this month. There will be a public
24 meeting later this month, and we'll incorporate
25 what we can from that report into our final EIS.

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1 be documented several different ways. An EIS is
2 one way. An environmental assessment is another
3 way. And the decision memo is yet a different way.
4 And each -- and that goes from very complex to very
5 simple.

6 Until we see what the
7 recommendation might be, or what the overall
8 impacts could be, we're not going to sit here and
9 tell you right now that it will be a supplemental
10 environmental impact statement. We won't commit to
11 that at this point.

12 But there will have to be some
13 additional environmental analysis, with the public
14 involved, as well.

15 MS. HALL: Okay. A question way
16 back there in the back?

17 MR. BENTLEY: Yes. My name is Jim
18 Bentley, and I have a question regarding Alternate
19 E, the proposed action, and specifically: How did
20 we end up with that as the only alternative of the
21 different spreads with a proposal to enter into the
22 Antler Glacier Lake area?

23 As I understand it, that would
24 require an environmental impact statement in order
25 for that to even be considered. It seems to me

12 (Pages 42 to 45)

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1 there is hardly time for that and still come up
2 with a timely decision on this draft EIS here, and
3 why was that the only alternative that proposal was
4 considering?

5 MR. GRIFFIN: We formed the
6 proposed action based on input from the companies.
7 We went out to them and said, "We are coming to the
8 end of this five-year period. We'd like to find
9 out what you are proposing for the future so we can
10 start an EIS."

11 So the companies gave us
12 proposals, and one of the proposals was a landing
13 at Antler Lake or Antler Glacier, combination. So
14 we put together the proposed action, and we sent
15 the notice of intent to the Federal Register. It
16 was published, and that is the basis for starting
17 your environmental impact statement process. And
18 we conducted the scoping based on that.

19 Well, we found out, in taking a
20 closer look at the Tongass Land Management Plan,
21 and looking at some of the buffers that are
22 required from mountain goat habitat, that it's
23 virtually impossible to fly in to Antler Lake and
24 conduct any aircraft activities in there, and stay
25 outside those 1,500-foot buffers that are

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1 prescribed by TLMP.

2 So we had a choice. If we chose
3 to follow that through, through the EIS, it would
4 have required a Forest Plan amendment. And that
5 would have taken the decision to a higher
6 authority, I think the forest supervisor or
7 regional forester. I think it was the forest
8 supervisor.

9 We chose not to do that. So it
10 remained in the proposed action, because we didn't
11 want to go back and change the proposed action, and
12 go back to the Federal Register with a revised
13 Notice of Intent.

14 So that's why it's only in there
15 in the proposed action. It's not in any of the
16 other alternatives. Is that --

17 MR. BENTLEY: If the Antler River
18 issue is not capable -- is not able to do this,
19 does that squash Proposal E, or will you modify
20 Proposal E?

21 MR. GRIFFIN: If I were to select
22 that alternative, I would modify it by dropping the
23 Antler Glacier from it.

24 MS. HALL: Okay. Karla?

25 MS. HURT: In the Forest Service

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1 Handbook, again, is a section that apparently
2 hasn't been reviewed recently, Section 31.41. It
3 talks about area of influence, and it describes
4 that it should be large enough to include people
5 most subject to direct or indirect social effects.
6 And that the boundaries should be along county --
7 which we would say borough -- lines when feasible.

8 And the boundaries that are put on
9 here -- I recognize that you just took, for a
10 starting point, what was there before, and we
11 didn't catch it before, but those boundaries are
12 really flawed. So are they going to be corrected,
13 and will stuff be re-analyzed based on including
14 all of Douglas?

15 MR. GRIFFIN: It's a matter of
16 redrawing that line. It won't require any
17 additional analysis. Seriously, we are looking at
18 all the effects, and the noise impacts follow
19 inside that project boundary line. We can change
20 that. That's not a big deal.

21 I know someone mentioned that
22 their neighborhood wasn't noted as being affected,
23 and we can change that, as well.

24 MS. HALL: Okay.

25 MS. HART: I'm sorry. I'm

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1 being --

2 MS. HALL: That's what we're here
3 for.

4 MS. HART: I'm really concerned
5 that the whole social analysis -- which I think is
6 key, because there are a lot of issues that go
7 beyond annoyance -- that whole social analysis,
8 which was mandated, was left out of this.

9 And based on what I'm reading,
10 it's going to require original research from you
11 all to address some of the issues, because, as you
12 say, nobody has been collecting this data.

13 And so I'm trying to figure out
14 how this will fit in with the permits expiring and
15 the deadline, and a chance to comment on a complete
16 document.

17 MR. GRIFFIN: What we do is we
18 make our decisions based on the best data we have
19 available. In some cases, we do collect more, but
20 it's -- I'll make a decision if I think we have
21 sufficient information, or if I have sufficient
22 information to make a decision. Some folks may
23 disagree.

24 MS. HART: Probably.

25 MS. HALL: Okay. Question? Go

13 (Pages 46 to 49)

1 ahead.

2 MS. CARLS: Figure 2-1 on
3 page 2-2 -- I have a couple of little points on
4 that just because some things don't seem to be
5 quite right. The point for 1994, which is the
6 number you are using of 11,081, on the graph it's a
7 lot higher than that. And then the point you use
8 for this year is assumed to be that they used all
9 the landings, and maybe that should be modified.
10 Hopefully you'll have that number before you
11 publish the final one.

12 MR. GRIFFIN: Sure. We can update
13 that.

14 MS. HALL: We'll take a look at
15 it.

16 MS. CARLS: Two more. You mention
17 on page 2-28, the Mendenhall Glacier Recreation
18 Area is off-limits to helicopter landing tours. I
19 don't know if they have looked at this for an
20 alternative satellite heliport thing or not, but it
21 seems like until they really check things out for
22 sure, we should leave things open.

23 I know that helicopters have
24 landed up at the glacier this summer as an
25 emergency kind of thing. I never heard boo from

1 much lower level than the FAA. They suggested 55
2 decibels, and above that being really annoying to
3 people; and the FAA uses 65. The FAA is in the
4 business of keeping planes going. I'm wondering
5 why you chose one over the other?

6 MALE SPEAKER: We need a few more
7 decibels back here so we can hear.
8 (Laughter)

9 MS. HALL: The question was with
10 respect to the FAA, most of the FAA documentation
11 and requirements talk about a 65-decibel level as
12 being the threshold for annoyance, and there are
13 EPA and other studies that suggest 55 decibels.

14 And I suppose the choice goes to
15 sticking with the official -- the official type of
16 analysis is usually done by the agencies, rather
17 than going off into a different arena, but we
18 acknowledge -- I mean, we know and we acknowledge
19 that there is a lot of research and a lot of
20 difference of opinion as to what the appropriate
21 threshold is.

22 And then, indeed, in the studies
23 here, we have tried to acknowledge those
24 differences, and also look at some things like
25 frequency and other things, which are a big factor

1 anybody that was living in the area that it
2 happened.

3 So, I don't know. Maybe if there
4 is a whole lot of it, you'll notice, but one
5 doesn't make any difference. But it should be
6 investigated. I'm wondering why you are just
7 saying no?

8 MR. GRIFFIN: That decision was
9 made back in 1995 with the Mendenhall Glacier
10 Recreation Area EIS. There was a decision made
11 then in that EIS that there would be no helicopter
12 landing tours in the recreation area.

13 MS. CARLS: And that can't be
14 modified?

15 MR. GRIFFIN: Oh, sure. Sure,
16 that could be modified. And, in fact, the
17 contractor did look at potential heliports within
18 the Mendenhall Glacier Recreation Area, and did
19 conduct some sound studies there.

20 MS. CARLS: Okay. Good. And then
21 the last thing is that I had a really good document
22 from the EPA about noise studies, which
23 unfortunately slipped through my fingers, and I'm
24 hoping to get another copy.

25 But, as I recall, they suggested a

1 here, as opposed to the absolute decibel level.

2 MS. CARLS: It might be a good
3 idea to also include the EPA's opinion on noise
4 levels in here.

5 MS. HALL: Okay. Thank you.

6 MR. RORICK: I don't know how much
7 of these things are going to end up in the final,
8 but it's a shame that they can't be in the draft.

9 But I'm wondering if there is
10 information on how many flights are carried over
11 from bad weather days to sunny weather days? You
12 permit them on a season basis, and you give an
13 average per day. But having some kind of handle on
14 what actually happens on a sunny day, with the
15 carryover, would be helpful.

16 And also it would give people a
17 chance to assess the effects of a proposal that has
18 been floating around -- a very creative, good
19 proposal, I think -- that would say if you don't
20 use it that day, you lose the permit, and what that
21 would do to the total number of landings.

22 In other words, not allow the
23 front-loading or the back-loading of activity into
24 the sunny days which we all enjoy, as rare as they
25 are.

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FEMALE SPEAKER: They should

contract them on rainy days.

MR. DIPPOLD: I wouldn't put this under the question, but if you are really considering helicopters up at the glacier visitors' center, all hell is going to break loose.

First of all, the recreation area can't put them in there. You've got the noise. You've got the people that live around it, and plus you've got the big increase in bus traffic. There are already too damn many busses going up there.

So don't -- or else things are going to come to a real halt very fast -- consider any helicopters landing up there.

Now, somebody brought up, "Well, it was an emergency." Nobody in their right mind is going to bitch about an emergency helicopter. They can land in my backyard if they want to, if they need to.

But don't start working a commercial outfit out of the Mendenhall Recreation Area, or there is going to be all hell to pay.

MS. HALL: Okay. Thank you.

Another question over here?

MS. HOOD: I'm Dixie Hood. I

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decimated?

MALE SPEAKER: I can just say that there is, like, Cascade Manor over here, and south of the airport, in the immediate airport area, over the last ten years, people don't put their houses on the market until the winter comes. People don't like to talk about it, because it affects -- what else do you have, if you are a working person, but your home?

You don't sell a house in the summertime in a lot of these areas. You put them on the market in the winter. And it used to be you could call the operators here, and you could say, "Can you help us out? Can you move away a little bit?" And they'd work with you.

Well, now they say -- there are just too many of them in there. You've got ERA now flying through here, into here, and they go right by here. They are all squeezed in a corridor. And they say, "Well, the tower is making us fly a new path. We can't adjust anything."

I mean, that's it now. There isn't any working with the residents in the area. They say, "That's your problem." And it is a dramatic effect. I just wanted to say that.

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don't know whether this would be in terms of social impact or economic impact, but I'm wondering if there was any research done into impact on real estate values in those locations that were originally fairly peaceful, and have had a steady increase in maybe not very loud noises, but incessant droning.

MALE SPEAKER: Ours have been decimated. Our real estate values have been decimated.

MS. HALL: We have not done any original research on that, and we did depend on some information that came from the assessor in some earlier meetings sponsored by the city and borough that said that the assessor did not have evidence of a negative impact on property values, based on, say, the noisier areas versus quieter neighborhoods.

Now, if --

MS. HOOD: The realtors might have a different view on that.

MS. HALL: Well, that is a thought. They might. Okay. Let me ask you -- I think I heard somebody say over there that they thought their real estate values have been

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MS. HALL: Okay. Thank you.

Could you give your name for the court reporter?

MALE SPEAKER: I don't want to be in the newspaper. How is that?

MS. HALL: Okay. Right here?

MS. TERREL: Paula Terrel. I live on Thane. I just want to mention a couple of things. You might, at some point, want to take a look at the noise study that was done for the city by Town, Richards, and Schroeder (ph) during the hearings on the AJ mine. It was done by an independent organization, and it only relates to downtown and Douglas.

However, it does very good work on the base line, and that is something that -- and they were not biased. They were hired by the city, and I really think that maybe that is something that needs to be done, is an unbiased noise study. We had to work very hard to get a study that was acceptable to both industry and the residents, and Town, Richards, and Schroeder were hired. That's one thing.

But on the other --

MS. HALL: Okay.

MS. TERREL: -- I'm speaking as

15 (Pages 54 to 57)

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1 myself. However, I've been on the board of the
2 Thane Neighborhood Association for well over ten
3 years. I have to tell you that just recently,
4 there have been several people in this area --
5 whether it's Thane or not -- that have tried to
6 sell their house and can't because they have been
7 told that the noise didn't allow them to purchase.

8 Now, I'm not even saying that's on
9 Thane, because if I said that, I would be
10 jeopardizing other people.

11 The point is, people are not going
12 to be telling you this because they are afraid, and
13 rightly so, that if they say, "I can't sell my
14 house because people have told me they won't buy it
15 because of the noise," well, what does that do?
16 Then they really can't sell their house.

17 So, I mean, you have got a real
18 Catch-22 here. And there has got to be some way
19 that you can quantify it or work with it. But you
20 can't expect people to come out and say, "I tried
21 to sell my house, and I live in such-and-such, and
22 they won't buy it," because you are screwed.

23 So I really think that some effort
24 needs to be made to quantify this, to work with it.
25 And you are not going to get it just by asking

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1 people to tell you the truth. I'm sorry.

2 MS. HALL: Okay. Right here?

3 MR. QUIGLEY: This is Dylan
4 Quigley again. I have two questions, two points of
5 view, one being that in the scope of things, has
6 any -- I feel challenged because I haven't really
7 read all of this, the alternatives, yet. Is there
8 anything in here about visual burden to quality of
9 life for the citizens of Juneau in this?

10 MS. HALL: No.

11 MR. QUIGLEY: No?

12 MS. HALL: No, and I think that's
13 because it didn't appear to arise as an issue
14 during the earlier scoping periods. I can't say
15 that I ever saw it mentioned in the record
16 anywhere.

17 MR. QUIGLEY: And I guess my other
18 take would be that in the event that these
19 satellite heliports occur and are built and
20 everything else, within that, I believe that there
21 is an effort to outline a criteria for these
22 heliports and for the CBJ, and what all that
23 entails.

24 MR. GRIFFIN: Yes.

25 MR. QUIGLEY: It becomes

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1 definitions of heliports, helistops, helilandings,
2 and within those titles, you have various swing
3 operations going on, or just stops, or fuel coming
4 in, and tourism happening.

5 That has a huge impact if you
6 start -- if you get where there is a lot more
7 activity happening, the impact of getting the raw
8 goods up there for 600, 800 dogs up there instead
9 of 200, you are going to have all these provisions
10 to provide for and generators and huge enclaves.

11 Therefore, wouldn't the impact be
12 such that you would have to include something in an
13 alternative for all these other things that are
14 going to take place to get the goods up there?

15 MR. GRIFFIN: I think the service
16 trips for any of the developments or enclaves up on
17 the icefield are accounted for in the cumulative
18 effects.

19 MR. QUIGLEY: Cumulative effects?

20 MR. GRIFFIN: Cumulative effects,
21 yes, for the development up on the icefield. There
22 are a certain number of additional helicopter trips
23 for dogs, for --

24 MR. QUIGLEY: Is there any
25 regulatory management of what is going in, what is

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1 up there, and the safety practices of carrying
2 fuel, and all these other things under your
3 authority --

4 MR. GRIFFIN: Yes.

5 MR. QUIGLEY: -- or whose
6 authority does that fall under?

7 MR. GRIFFIN: Yes. That falls
8 under primarily our authority, except for air
9 operations, and that is covered by the FAA. But
10 the development that goes on on top of the
11 icefield, the safety factors, safety measures that
12 are taken up on the icefield by our permitted
13 operations, those do fall within our authority.

14 Sling-loading out over the
15 airport -- no, we don't have any authority over
16 that.

17 I suspect I haven't answered your
18 question fully.

19 MR. QUIGLEY: Well, I suspect that
20 a lot more activity is going to be taking place
21 once these satellite heliports are enacted, because
22 you will have existing helicopters that are
23 grandfathered in, and they are not just going to
24 take them away.

25 Then you will have these other

16 (Pages 58 to 61)

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1 grandiose heliports with certain criteria. And as
2 you expand out into the icefield, you are going to
3 have to allow for a lot more provisions to make
4 their way up there.

5 Therefore, you could have other
6 routes involving just getting the goods there,
7 other times in order to get them there. I'm just
8 wondering, in these alternatives -- I mean, this is
9 what we are really looking at in this decision.
10 There is nothing in there with that scope in mind
11 because it is --

12 MR. GRIFFIN: So you are talking
13 like if there are four or five dogsled camps up
14 there instead of just one?

15 MR. QUIGLEY: Right. That's one
16 way to look at it.

17 MS. HALL: I'm thinking, Pete,
18 that -- your comment makes me think of a couple of
19 things. One is we do address the issue of the
20 support flights when we discuss cumulative impacts.
21 But we don't discuss it, I don't believe, as
22 differentiated between the alternatives, as in if
23 we choose an alternative that allows more flights,
24 that implies more support flights. And we don't
25 really address that particular point, but could.

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1 And then the other thing, though,
2 with respect to more heliports, I think what Pete
3 has the authority to select here is how many
4 landings will be permitted, and what will be
5 associated with those activities.

6 And, regardless of where those
7 flights are initiated, the addition of heliports
8 wouldn't change the number of landings that are
9 permitted, unless, as Pete mentioned earlier, new
10 analyses, perhaps a new decision memorandum or new
11 EIA or new EIS evaluated the idea of allowing, say,
12 more landings because there are new heliports.

13 But without a new analytical
14 process, the fact that there are also new heliports
15 wouldn't change the number of landings that would
16 be permitted on the icefield.

17 Okay. Right here?

18 MR. RAY: I'm Steven Ray (ph), and
19 I live on Thane Road. So it is my understanding
20 here from what you say that the support operation
21 flights would not be considered under the actual
22 use authorized or the time and day -- proposed time
23 and day restrictions?

24 MR. GRIFFIN: I'm not concerned
25 with the support flights as part of the overall

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1 landings. Time of day -- I guess I hadn't
2 considered doing that because the support flights
3 are such a small, small number of flights overall.

4 MR. RAY: Are they?

5 MR. GRIFFIN: Gosh, I think we
6 have got it in the EIS someplace.

7 MS. THORPE: It's probably about
8 25 additional landings per season for one of the
9 dogsled camps. That is an estimate, and I don't
10 have an accurate count of exactly how many --

11 MR. RAY: Have you estimated the
12 growth in terms of what is being proposed for the
13 growth of these types of enclaves?

14 MS. HALL: No. As I mentioned, we
15 had not specifically looked at whether, say,
16 Alternative G, which allows for quite a few more
17 developments on the icefield -- we hadn't really
18 tried to quantify how many more support flights
19 would be associated with that, but I think that's
20 something we could do easily enough.

21 Okay. Over here?

22 MR. REGES: A question for Pete --
23 Robert Reges again. Based on what this other
24 fellow asked about, whether or not visual impacts
25 had been taken into account, Pete, my question is:

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1 You define on Appendix B, page 13, "The term social
2 encounters refers to the number and type of people
3 met along travelways within sight or sound."

4 Why is a helicopter not a social
5 encounter?

6 MR. GRIFFIN: We're going to court
7 on this, Robert. I'm not answering that.

8 MR. REGES: I know. I mean, maybe
9 we don't have to go to court. You told me I could
10 ask you questions, buddy. Do you have a comment?

11 MR. GRIFFIN: At what point does
12 an overflight not become a social encounter? You
13 know, if an Alaska Airlines jet goes over, it's
14 probably not a social encounter. A helicopter at
15 2,000 feet, is that a social encounter?

16 MR. REGES: What if you are on a
17 ridge, and it's not at 2,000 feet?

18 MR. GRIFFIN: Well, yes. At
19 500 feet, it would be considered an encounter of
20 some kind. But it's really -- it's the
21 expectations of the recreationists, too.

22 "Encounters," in my mind, is one
23 group bumping into another group. It's not
24 necessarily a group seeing a helicopter fly by.

25 All I offer back, although this is

17 (Pages 62 to 65)

1 not the comment period, is that your definition
2 says -- "sphere of influence" says "sight and
3 sound," so the encounter is not physically I bump
4 into you. It is I hear you and I see you.

5 MS. HALL: Okay.

6 MS. LEVINE: Joyce Levine. I'm
7 wondering, because of the amount of people that
8 come up in the summertime to work in Alaska -- many
9 of them come up to work in the tourism industry.
10 Many of them, as are in this room right now, come
11 up to work in the helicopter industry.

12 I'm wondering, when you are
13 receiving your comments, are those comments -- how
14 are you weighing the comments of people who look
15 forward to working in the tourism industry -- when
16 they hear a helicopter, they think of a job --
17 compared to the people who live here, when they
18 hear a helicopter, it's an -- helicopter after
19 helicopter, it's annoyance to them.

20 How are you weighing the responses
21 you are getting from residents who live here
22 year-round for maybe the last ten years, 15 years,
23 who are seeing this increase happening over and
24 over again, and seeing it accumulating more and
25 more, compared to people in this room who may be

1 coming up here for a job, who are looking forward
2 to having 50 more helicopter landings on the
3 glacier every year?

4 How are you viewing the comments,
5 being that this is the National Forest Service, and
6 these people who are working here in the summer are
7 also part of the United States, who use the
8 national forest? How are you looking at that?

9 MR. GRIFFIN: Boy, Joyce, if I had
10 an answer for that one, I sure wouldn't be here.

11 That's the crux of the matter. It is national
12 forest. There are people who come here to visit
13 this place specifically, and want tours, and that
14 want to go out on our trails, or up on the
15 icefield, or go see whales, or catch a salmon.

16 And I do have to weigh that
17 against folks who live here and say, "Enough is
18 enough." I don't pile this stack of postcards in
19 one hand and this stack of letters in the other and
20 go, "Hey." I don't have an answer for you.

21 MS. LEVINE: But the people who
22 live here -- this is our home. This is where we
23 live. We didn't come here for a helicopter job.
24 We didn't come here to work in whatever industry
25 that some people work in. We came here because

1 there are certain things about Alaska that we
2 enjoy, the peace and quiet being one of them; being
3 able to walk up on a mountain and then hearing the
4 peace and quiet being one of them.

5 To hear the consistency of
6 helicopters is an annoyance, and you've been
7 getting that feedback. This is the City and
8 Borough of Juneau. These are people that live
9 here. I think that there has to be a certain
10 weight given to people who don't -- you know, if
11 you asked somebody who works here in the summer
12 what their address is, they are going to give you
13 their address living on whatever street in Juneau,
14 because this is where they are living.

15 But the people who live here who
16 are year-round residents -- I think that it needs
17 to have more of an impact on what they are saying,
18 rather than people who are just coming here for a
19 job, and who are going somewhere else, who are not
20 going to be here for --

21 MR. GRIFFIN: Well, I'll sure try
22 to take that into consideration, and when I come up
23 with a decision, you may see that reflected. You
24 may not. I won't make any guarantees.

25 MS. HALL: Okay. Another

1 question?

2 MS. HART: I'd like to know who
3 actually wrote the "Affected Environment Area
4 Residents" section. I don't know if this is
5 written by one person, but this particular section
6 on the area residents, it has a little economic
7 analysis and some quotes about what the community
8 thinks.

9 MS. HALL: I did.

10 MS. HART: You did? I'm just
11 curious, because it seems to have some real intense
12 bias, and the part that jumps out to me most is
13 that, as a community, this has become an issue for
14 a long, long time, and the closing paragraph ends
15 with a quote that "One participant in discussions
16 expressed more concern about barking dogs than
17 helicopter noise, where another tolerantly referred
18 to the aircraft noise as the sounds of summer."

19 And I know that in writing you
20 close with your -- there is just this incredible
21 bias there, whether it's intentional or not, that
22 impairs the objectivity of the document.

23 So that, I guess, is somewhat a
24 comment. Maybe you have a response. And then I
25 have a specific question on that section.

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1 MS. HALL: I think just in
2 response, I'll say that I'll take your comment
3 under advisement, and see if there is something to
4 be done to perhaps achieve more balance. I'll take
5 a look at it.
6 MS. HART: I would hope that the
7 final document would be more balanced.
8 The economic section -- I would
9 hope since we're here, and we're having this whole
10 process because of the helicopter industry, that
11 the industry was being cooperative in providing you
12 with the information that you needed to do an
13 accurate analysis. And this little one-paragraph
14 estimation of the contribution of helicopter
15 landing tours -- I'd like to know where you got
16 these numbers, what this is based on.
17 MS. HALL: The numbers are based
18 on -- if you could be more specific, Karla, about
19 the sentence or the number.
20 MS. HART: Sure. It says here,
21 "Each participant pays approximately \$250 for a
22 helicopter tour." I went to the Web sites of all
23 the operators, and I'm really clueless as to how
24 you came up with that number.
25 MS. HALL: Okay.

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1 MR. GRIFFIN: Do you have a better
2 number?
3 MS. HART: Well, I think the
4 operators would have a better number. What I see
5 is North Star Trekking has a \$178 discovery trip
6 and a \$305 trek. Well, what portion of your tours
7 are discovery, and what portion of yours are treks?
8 Temsco, \$169 for their standard
9 tours. I would expect that when I see six
10 helicopters flying over and headed for the
11 Mendenhall Glacier, those are probably the low-end
12 tours. I don't know that for a fact, but I would
13 expect that.
14 The pilot's choice is \$239, and
15 their hiking tour is \$250. So their most expensive
16 tour is your approximate tour that you are putting
17 in.
18 ERA's tours were listed at \$195
19 for a helicopter tour and \$329 for a dogsled tour.
20 Unless they are running a heck of a lot of dogsled
21 tours up there, there is no way that I could arrive
22 at \$250.
23 MS. HALL: Okay. So you are
24 suggesting that we should --
25 MS. HART: Get real numbers.

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1 MS. HALL: -- use more real
2 numbers, or try to come up with a real average,
3 rather than an approximation, and provide --
4 MS. HART: Maybe a weighted
5 average that reflects that fact that maybe
6 10 percent of the helicopter tours are sold at this
7 price, and 90 percent at that price.
8 MS. HALL: Okay.
9 MR. GRIFFIN: I think you answered
10 that.
11 MS. HART: Further, you say here
12 that "Much of the revenue is paid to the cruise
13 lines," which is true, and you've got approximately
14 \$70 per participant.
15 I haven't worked with the cruise
16 industry for a long time, but a long time ago, it
17 was a 20 percent commission. Perhaps it has gone
18 up, but even 20 percent of \$250 is \$50, not \$70.
19 Where did that number come from?
20 MS. HALL: We did get that number
21 from, I believe, the tourism bureau, but I'd have
22 to check. Let's just, if we can, address it as
23 there seems to be interest in having more precise
24 numbers, and so we can --
25 MS. HART: How about accurate?

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1 MALE SPEAKER: Accurate, not
2 precise.
3 MS. HALL: Okay. More accurate
4 numbers, and more information, and I think we can
5 probably get it to provide more information in the
6 final EIS. We'll look into it.
7 MS. HART: That could maybe expand
8 throughout in terms of numbers. It seems any --
9 that's a comment. I'll wait. Never mind.
10 MS. HALL: Okay. Over here?
11 MR. RORICK: Well, welcome to
12 Juneau. This isn't exactly a savage Forest Service
13 session.
14 I sympathize with you, Pete, when
15 you go through these authorized outfitter guide
16 operations on the following criteria section. You
17 do have some conflicts here. Number B is "Existing
18 or proposed operations or activities are
19 appropriate for the specifically broad sections
20 within the land use designation."
21 We have heard quite a bit about
22 that. And there is no doubt here that you will
23 hear even more about what a social encounter is
24 going to be.
25 MR. GRIFFIN: I've heard that.

19 (Pages 70 to 73)

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1 MR. RORICK: "Where there are
2 adverse impacts to popular or highly-valued local
3 areas, outfitter guide operations are minimized."

4 Going through the tables in the
5 DEIS, there is not a neighborhood or trail,
6 recreational trail, or area that is not being
7 impacted. You go through the observations down in
8 table 3.5, and you'll see that some of the trails
9 are having 20 helicopter observations, within the
10 criteria for this study, or 20 helicopter and
11 fixed-wing observations per hour.

12 I know the language of the goals
13 for these ROS settings and land use designations
14 gets a little bit warm and fuzzy, but this really
15 goes to the heart of the intent of the Tongass Land
16 Use Management Plan when they set up these
17 designations.

18 You also have, "The operations can
19 be carried out in a manner that is compatible with
20 existing or expected use by the nonguided public."

21 One of the problems in Juneau is
22 the base line for that use is changing. The people
23 that remember what it was like 20 years ago when
24 things were really quiet are dying off. But be
25 aware --

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1 MALE SPEAKER: I hope not.

2 MR. RORICK: -- there are enough
3 of us still here, and that pertains to a
4 development like Cowee/Davis, where theoretically,
5 you can permit a Princess Hotel or any kind of
6 urban development you want. That's the yellow map
7 out there. That's a timber development, land use
8 designation --

9 MS. HALL: I'm sorry to interrupt,
10 but can we find the question in there? I'm sorry,
11 but --

12 MR. RORICK: The question is how
13 you balance these things and justify them under
14 this plan? Frankly, Juneau does not expect what
15 has come to be the existing use in the last few
16 years for their recreational experiences within the
17 city and borough. There is no place you can go.
18 It's tough to balance.

19 MR. GRIFFIN: Yes.

20 MS. HALL: Okay. Thank you.
21 Other questions?

22 MS. HART: I'm sorry. I came with
23 a laundry list. In the affected environment,
24 again, it says that there are four components of
25 the affected environment: Area residents,

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1 recreationists, wildlife, and new areas for
2 proposed operations.

3 Being as how the people going in
4 the helicopters up to the glaciers are considered
5 Tongass National Forest visitors and have the right
6 to be there, there -- I don't remember the
7 percentage, but about 70 percent of the people on
8 the cruise ships are not going on these helicopter
9 tours, and many of them are going out to the
10 visitor's center. They are going on the rafting
11 trips, the hiking trips, the canoe trips that are
12 all severely impacted.

13 Their experience is really altered
14 by the presence of the helicopters, as well as
15 there are all the independent travelers. And the
16 helicopter industry study said 99 percent of their
17 participants were cruise ship passengers.

18 So you have two big groups of
19 national forest visitors who are being very
20 impacted by one group. I'm wondering where that is
21 given consideration.

22 MR. GRIFFIN: Where do you have
23 the numbers that the other visitors are being
24 heavily impacted? I don't get complaints from
25 other cruise ship passengers regarding helicopters.

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1 MR. HINKLEY: Did you see the June
2 issue of the "Smithsonian" magazine?

3 MR. GRIFFIN: No.

4 MS. HART: There is stuff going
5 on, and, in fact, Jim Howell (ph) told me the other
6 day that the president of Royal Caribbean Cruise
7 Lines told him in a conversation when he was there,
8 sort of as an aside, which Jim said he probably
9 wouldn't repeat in testimony -- I love Juneau --
10 that they are starting to get complaints from their
11 other cruise visitors about the helicopter noise.

12 I have been talking to
13 bed-and-breakfast operators around Juneau, and they
14 are getting complaints from their guests about the
15 helicopter noise. I spent some time at the
16 visitor's center, and I would expect that if you
17 had done any sort of survey or visitor feedback,
18 that while people may not be complaining, if they
19 thought about it, their experience was impacted.

20 MS. HALL: Actually, we do have
21 the feedback from the visitor's center.

22 MS. HART: Did I miss that? Is it
23 in here?

24 MS. HALL: I think it is
25 mentioned. I think it is mentioned in there. And

20 (Pages 74 to 77)

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1 pretty briefly, only because mentions of the noise
2 was a pretty small percentage of the total amount
3 of comments that we had. That is -- you know,
4 that's the information that we had.

5 Your other issues about the
6 potential impact on the other cruise ship
7 passengers or other tourists is information that we
8 have not had up to this point.

9 MS. HART: Do they deserve equal
10 merit with those people who choose the helicopter
11 tours when you are making your consideration for
12 how you decide?

13 MR. GRIFFIN: Sure.

14 MS. HALL: Okay.

15 MR. RORICK: Just a little bit of
16 secondhand, anecdotal information. One of our
17 members and a friend, who was staying at the
18 Mendenhall campground, did a survey of everybody
19 staying there, and it was unanimous. They are
20 annoyed.

21 Other anecdotal information I have
22 had from people walking on the West Glacier Trail
23 is that it is the number-one complaint from foreign
24 tourists, and they cannot believe that it is
25 allowed.

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1 MS. HALL: Okay. Right here?

2 MR. WILSON: Jim Wilson. I wasn't
3 going to say anything.

4 MR. GRIFFIN: You got a question,
5 Jim?

6 MS. HALL: Do you have a question?
7 We are not going to get into the --

8 MR. WILSON: And it is going to be
9 a question.

10 MS. HALL: Okay.

11 MR. WILSON: I came up here 33
12 years ago for a helicopter job, and I'm still here,
13 and our company is providing about 15 full-time
14 jobs to people who have been here for years.

15 Karla mentioned the social
16 effects, and somebody talked about the economics
17 and the numbers in here. If you decide to do more
18 study on some of the issues that have been brought
19 up, not concerning the direct landings on the
20 glacier, will you include more economic data as to
21 how it will affect not only the helicopter
22 operators, but the business community in Juneau,
23 and Juneau as a whole?

24 MS. HALL: Well, I think we have
25 been talking a little bit about what the

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1 appropriate level of economic analysis is, and
2 certainly the more data we try to provide on one
3 side, the more comparable data we have to provide
4 on the other side.

5 So depending -- and we're going to
6 have to have some kind of internal discussion about
7 how far we think we need to go in doing additional
8 economic analysis, but -- and we have a lot of
9 things now on the record that people have mentioned
10 tonight, not only particular types of impact, but
11 also data sources, and also accuracy of data and
12 the level of specificity and everything.

13 So I think I can say if we get
14 into a deeper economic analysis, it will have to go
15 across the board. That might go into things like
16 more specific information about the employment,
17 both the direct employment of the helicopter
18 companies and the supplier companies, and the
19 indirect employment associated with the tourism and
20 such.

21 MR. REGES: Truly a question, not
22 a litigious question, and not even directed to you,
23 Pete. When you worked through numbers and impacts
24 in this draft, did you count each landing as one
25 overflight or two overflights?

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1 MS. HALL: Two overflights.

2 MR. REGES: Okay.

3 MS. HALL: Okay. Another question
4 here?

5 MR. QUIGLEY: Are these
6 alternatives what is on the board, A through G, and
7 if -- you know, is that what is in them, is in
8 them, and that's what is being decided on, and when
9 that comes out in January or such -- when that
10 comes out, will it be posted that G was -- or it
11 would be A that you've chosen, or is it going to
12 come out with some variances to it?

13 MR. GRIFFIN: It's probably going
14 to be based on one of the current alternatives,
15 with some modifications. And the modifications can
16 be different mitigation measures. It could even be
17 different numbers of landings than what was
18 originally in that alternative. So it is going to
19 be within that range that was presented, but we're
20 not locked into A, B, C, D, G, F. It's just --

21 MR. QUIGLEY: Right.

22 MR. GRIFFIN: I think I missed
23 something there.

24 MS. HART: E.

25 MR. GRIFFIN: Yes. Thank you.

21 (Pages 78 to 81)

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1 MS. HALL: I want to maybe build
2 on that just briefly, because that is one of the
3 reasons that I think Pete said at the very
4 beginning, before we started the
5 question-and-answer period, that he liked to get
6 specific comment from people about specific aspects
7 of the alternatives, not just, "I like Alternative
8 F," or "I like Alternative B," but why, because
9 that might help guide some variations and some
10 alternatives.

11 For example, one of the things I
12 had mentioned earlier about the alternatives is
13 that they tend to go from fewer flights and also a
14 lot more restrictions on activities on the
15 icefield, to more flights and less restrictions on
16 activities, and it might be that some commenters
17 would say, "Well, you know, I think it would be
18 better if we had fewer flights, but not the
19 restrictions," for example.

20 So it's conceivable that the
21 decision would end up in that direction. That is
22 why specific information about aspects that people
23 like and don't like are important.

24 MR. QUIGLEY: I had --

25 MS. HALL: I'm sorry. Did you

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1 future.

2 MR. REGES: Don't you have to take
3 into account foreseeable developments?

4 MR. GRIFFIN: I suppose that's a
5 possibility, but --

6 MR. REGES: It depends on how far
7 it gets, right?

8 MR. GRIFFIN: Well, yes, and I
9 don't know where --

10 MR. QUIGLEY: But isn't that part
11 of the whole infiltration of this, because --

12 MR. GRIFFIN: I can't -- I
13 can't --

14 MR. QUIGLEY: -- if you choose G
15 that allows for a lot more flights, you are going
16 to have to have some resolution on where to put
17 them, what to do with the noise.

18 MR. GRIFFIN: The only information
19 I have now is operating out of current approved
20 locations. There is no other decision that I can
21 make. There is no other information I can
22 disclose, other than there is the possibility that
23 there might be satellite heliports that something
24 might operate out of, but I don't know that.

25 CBJ might come to me and say, "We

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1 have another question?

2 MR. QUIGLEY: I have another
3 question. Since this EIS is so close to the
4 decisions being made about satellite heliports, say
5 we go with F or G, or whatever one entails much
6 more flights, much more freedom of the flight
7 industry to take over, the environmental
8 consequences in new areas -- wouldn't that -- being
9 that those two are -- that decision is being made,
10 it's in place, and this is being done at the same
11 time, yet kind of overlapping -- shouldn't the new
12 heliports involve environmental consequences in new
13 areas? It's going to have flights flying out of
14 those new areas, those chosen satellite places.

15 MR. GRIFFIN: Right. But that
16 isn't a decision that is being made in this
17 environmental impact statement. That is going to
18 have to be a separate --

19 MR. QUIGLEY: It's going to be an
20 oversight until the next EIS five years down the
21 line, in a sense?

22 MR. GRIFFIN: I don't think so,
23 but I have to make my decision as if there were no
24 remote satellite heliports. I can't base a
25 decision on something that could happen in the

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1 thought it was a good idea, and it really isn't.

2 We're not going to support this." I don't know.

3 MR. QUIGLEY: Maybe I'm thinking
4 in the drafting of this, since I'm challenged by
5 not reading it all, why wasn't -- I mean, that is a
6 big part of the game right now. They did a huge
7 study -- it took them two years, almost -- studying
8 the impacts of noise throughout the borough, and
9 wouldn't that coincide with this? Wouldn't it work
10 with it? It hasn't up to this point, obviously,
11 because you look flustered.

12 MS. HALL: Can I ask a clarifying
13 question, because I think, indeed, we might not be
14 understanding what you are getting at.

15 What do you see as the different
16 impact of what we're looking at in the EIS, and
17 within Pete's decision-making purview, what do you
18 see as the analysis that is left out of this EIS by
19 our not addressing heliports --

20 MR. QUIGLEY: Well, just looking
21 at the --

22 MS. HALL: -- but let me just make
23 one sort of clarifying point before we get to your
24 clarification.

25 You mentioned something about

22 (Pages 82 to 85)

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1 impacts on new areas, and I think in the context of
2 the EIS, when we talk about impacts on new areas,
3 we're talking about impacts on new areas of the
4 forest, that is, areas that would be authorized for
5 landings that are not currently authorized for
6 landing. That was the issue, and that's the focus
7 of that issue. So it's not related to impacts on
8 other places off the forest, only the impacts on
9 new areas on the forest.

10 MR. QUIGLEY: Well, it's under
11 "Environmental Consequences, New Areas."

12 MS. HALL: Okay.

13 MR. QUIGLEY: And you put in a
14 brand-new satellite heliport that is going to
15 accommodate five companies with all those goods
16 going into that one central location -- say it's up
17 in Hidden Valley. Say it's right in the midst of
18 all of the forest, up there, right on Lemon Creek,
19 and you can't even begin to think that that is not
20 going to have consequences on the environment.

21 MS. HALL: Okay. I think we do
22 understand your point now, and let me just say,
23 again, that in the context of the issue as we
24 understood it from scoping and so forth, the
25 definition of impacts on new areas is specifically

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1 MALE SPEAKER: I'm sorry, I
2 haven't read this. But I just want to know, is the
3 effect on the surrounding residences around the
4 current helicopter operation here taken into
5 consideration in this, the impacts on the residents
6 around the airport?

7 MR. GRIFFIN: It impacts as far as
8 numbers of flights and decibel levels.

9 MALE SPEAKER: So negative impacts
10 were taken into consideration in this thing? Okay.

11 MS. WARNER: Speaking of decibel
12 levels, are you also looking at the duration of
13 those decibel levels? Because it's not just one
14 helicopter going over. It's four or a six-pack.

15 MS. HALL: Oh, sure. And that
16 information definitely is in the EIS, and that
17 information was taken from the study that was
18 commissioned by the CBJ, and they have a lot of
19 information in there about frequency and duration
20 and such things.

21 MS. WARNER: And you are also
22 looking at what the duration would be if you go to
23 F or G, with the drastically increased flights?

24 MS. HALL: That's right.

25 MS. LEVINE: I'm just wondering,

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1 associated with impacts on areas of the national
2 forest that would occur if landings are allowed in
3 those new areas, where they are not currently
4 allowed.

5 That was the issue that was raised
6 in scoping, and so that is how we defined the
7 issue. So the concept was not at all to think
8 about impacts in new areas not on the national
9 forest, which I think is your issue.

10 MR. QUIGLEY: Do you see the
11 point, though? Do you see the point?

12 MS. THORPE: If I could draw your
13 attention to page 2-29, satellite heliports is
14 addressed there, but it was eliminated from further
15 detailed study because it is so speculative at this
16 point.

17 Should there be a proposed
18 satellite heliport on the national forest, we would
19 have to do an environmental study on that. But we
20 cannot do that now because there has not been one
21 proposed on the national forest --

22 MR. QUIGLEY: Okay.

23 MS. THORPE: -- for us to study.

24 MS. HALL: Okay. Thanks, Laurie.
25 Another question here?

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1 what effect does the City and Borough of Juneau, as
2 a government, have on the ability to choose how
3 many flights go up on the glacier within the City
4 and Borough of Juneau? What effect does the
5 assembly have? What effect does the voting people
6 in Juneau have? Like, let's say, a referendum came
7 up on the ballot to vote on a particular issue
8 concerning noise or a particular issue concerning
9 helicopter use or whatever, and it came up for a
10 vote. How does that affect the Forest Service if
11 Juneau passes a law or Juneau passes -- makes a
12 decision within the City and Borough of Juneau?

13 MR. GRIFFIN: Any of our companies
14 that are under permit for helicopter glacier
15 landing tours have to comply with national, state,
16 and local laws and regulations. So if there were a
17 law passed that said no flights on Sunday, and that
18 was upheld as legal, then the companies under
19 permit wouldn't be able to fly on Sunday.

20 But I'm also looking for the City
21 and Borough of Juneau to provide input on this EIS,
22 too. I'd like the elected officials here to kind
23 of weigh in on it.

24 MS. HALL: Okay. Right here?

25 MR. REGES: Robert Reges again.

23 (Pages 86 to 89)

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1 Do you know, Pete, how quickly the change would
2 have to be made in such a circumstance, so that if
3 you have a permit that is good for five years, and
4 in year two an ordinance gets passed, do you have
5 three years more operating under your own permit?
6 Do you know?

7 MR. GRIFFIN: You mean if there
8 were a change in the law?

9 MR. REGES: Yes, if there was a
10 change in the law. Do your permits say -- a lot of
11 permits these days say, if there is a change in the
12 law, how long you have before you have to conform
13 to it.

14 MR. GRIFFIN: I have the authority
15 to revoke, terminate, suspend, and somehow modify
16 permits to take into account changes in laws, both
17 federal and other laws, and enforce policies.

18 MR. REGES: Have you got now in
19 the permits any provisions that foresee changes in
20 laws?

21 MR. GRIFFIN: That clause is in
22 every permit. It's a standard clause.

23 MR. REGES: It allows you to go
24 back in and affirmatively make a change?

25 MR. GRIFFIN: Yes.

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1 MR. REGES: But some other
2 permits -- for instance, say, a state-issued air
3 quality permit -- actually would have a provision
4 in it that anticipates a change in law.

5 So if it's a five-year permit, if
6 the law is changed in the first 36 months, then you
7 have 12 months to comply, something like that?

8 MR. GRIFFIN: No. There is no
9 timing thing in there. It's just I have the
10 authority to modify the permit.

11 MR. REGES: I would recommend that
12 you consider or at least look at these other
13 permits that are out there that anticipate changes
14 in the law, since we all can foresee that it is a
15 dynamic area in Juneau.

16 MR. GRIFFIN: I have got the
17 authority to do it, and I can do it overnight, if I
18 so choose.

19 MR. REGES: If your discretion is
20 exercised discretely.

21 MS. HALL: Okay. Let's go to
22 another question.

23 MR. RORICK: As I understand it,
24 when you grant permits, you assess the impacts of
25 these permits cumulatively and otherwise to Forest

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1 Service lands underneath the flight routes, the
2 intended flight routes. If these intended flight
3 routes later turn out to not be followed, but they
4 are branching all over on a consistent basis, then
5 you have the power to modify the permits because
6 the conditions under which you granted them have
7 changed?

8 MR. GRIFFIN: I'm going to say yes
9 to that. We base our environmental impact analysis
10 on what is most likely a flight route, and the
11 companies have worked to kind of standardize those,
12 and place them in areas that we believe have the
13 least impact to residents, anyway. So those are
14 what are displayed in the EIS.

15 If there were a situation where we
16 determined that, you know, maybe one company is
17 flying up the Mendenhall, and instead of flying
18 straight to the glacier, they are taking a tour
19 around Lena Loop and this and that, and then going
20 over to land on the Mendenhall, we'd say, "This is
21 not consistent with what we have displayed in the
22 EIS. Your flight route is completely off."

23 You are getting into a gray area.
24 I think I would talk to the operator first about
25 that, but --

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1 MR. RORICK: Can I extend this a
2 step further?

3 MR. GRIFFIN: A further question?

4 MR. RORICK: Yes, just a step
5 farther. If you are addressing the cumulative
6 impacts when you are granting the permits, you are
7 addressing the knowledge you have on the
8 flightseeing routes of nonlanding aircraft also.

9 So have you -- when you consider
10 the number of permits you are going to grant, do
11 you consider the voluntary compliance agreements
12 about flightseeing in regards to nonlanding
13 activities, and if these activities changed in
14 nature, and voluntary compliance was no longer
15 being adhered to, you can modify the permits that
16 you do have control over?

17 MR. GRIFFIN: We're starting to
18 get into an area where I'm really uncomfortable,
19 because we don't have specifics. I have a lot of
20 authority under the permits, but it only goes so
21 far. And I see -- and I think what, in one
22 respect, you are asking is if there are -- if we
23 said, "Well, we expect that there will be 50
24 flights a day over the top of the West Glacier
25 Trail to land on the Mendenhall Glacier," and there

24 (Pages 90 to 93)

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1 are also 25 fixed-wing flights from Juneau to
2 Skagway that also use that corridor, what happens
3 if, all of a sudden, there are 100 fixed-wing
4 flights? Do I go back into the permit and say,
5 "Gosh. Sorry about that, but there are now 150
6 flights, and we said there was only going to be 100
7 total, so you are out of luck"? That probably
8 isn't going to happen.

9 MR. RORICK: What if there was a
10 voluntary compliance agreement that no longer
11 seemed to be being adhered to? You do assess
12 impacts from the total flightseeing activities to
13 Forest Service lands on a cumulative basis, I
14 assume?

15 MR. GRIFFIN: Yes, Mark. That's a
16 good question. When the voluntary compliance was
17 being discussed with CBJ last spring and over the
18 summer, we talked about rewards and
19 enforceability -- or I shouldn't say "we." Rewards
20 and enforceability were discussed.

21 I don't know what came of that.
22 And the voluntary compliance guidelines are set up,
23 really, outside our authority. I really don't have
24 any enforcement authority over those. That's about
25 as far as I can go with that.

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1 MR. RORICK: But you do assess
2 them when you are thinking about total impact
3 experience, I would assume?

4 MR. GRIFFIN: Yes, we take them
5 into account.

6 MS. HALL: Okay. Right here?

7 MR. DIPPOLD: You have nice maps
8 with nice, thin little lines in for flight paths.
9 Do you have a map that shows the flight paths with
10 the see-and-hear width, bandwidth on it?

11 MS. HALL: No, we don't.

12 MR. DIPPOLD: I would suggest that
13 would be something you should have, because this
14 shows not much. You are going to see total
15 coverage, damn near, except maybe that little hole
16 in the middle there, up in the upper icefield, that
17 the overlap is there. There is no independent
18 flight paths.

19 MS. HALL: Okay. There are no
20 independent areas? No impact --

21 MR. DIPPOLD: There are no areas
22 that are not seen or heard, and in most cases,
23 multiple times. That would not be too difficult a
24 map to make, based on altitude and sound levels
25 coming out of the 'copters to make. I'm sure you

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1 have the ability to do that.

2 MR. GRIFFIN: We can take a look
3 at that.

4 MR. DIPPOLD: That would be --

5 MR. GRIFFIN: And there are
6 probably people in this room that can help us.

7 MS. HALL: Okay. Right here?

8 MS. TERREL: I have a question on
9 process, this whole process. Paula Terrel.

10 If I'm correct -- and please
11 correct me if I'm not -- under the guidelines for
12 an EIS, you are required, as the Forest Service, to
13 answer all the comments that are -- or address all
14 the comments that are made. Is that --

15 MS. HALL: That's correct.

16 MR. GRIFFIN: Uh-huh.

17 MS. TERREL: Is this part, right
18 now, of the public comment period? Because there
19 have been a lot of comments that have been made,
20 and I don't know whether we're in the public
21 comment process.

22 I mean, people have signed up.

23 There are a lot of other people that probably
24 haven't signed up, probably because they didn't
25 want to, but they have made comments.

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1 Is all of this that is being taken
2 down now part of the record that you will be
3 required to address? Because I think it should be.

4 MR. GRIFFIN: Yes. The questions
5 that have been raised, I think we have responded
6 to.

7 MS. TERREL: No, you haven't.

8 Excuse me. I'm sorry.

9 MR. GRIFFIN: Well, we have tried,
10 maybe not to everybody's satisfaction. There have
11 been some comments sprinkled through here, but we
12 have set up part of this time to take official
13 comment. And that is where we'll start taking the
14 comment, and that's what will be addressed in the
15 final EIS.

16 MS. TERREL: I think the reason
17 I'm asking this is that there are some people who
18 have left, and there are some people who have made
19 comments who didn't know that, and their comments
20 will not be part unless you decide -- they will not
21 be part of the record that you need to address, and
22 it has not been made clear -- and those of us who
23 have been involved in EISs and NEPA maybe are a
24 little more aware.

25 But there are other people who

25 (Pages 94 to 97)

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1 have made comments that maybe thought they would go
2 into the public record, and they haven't been, or
3 they might not be, depending on what you decide.

4 MS. HALL: Well, let me make a
5 couple of responses. I guess we did try earlier in
6 the meeting to make it clear that we were going to
7 have questions first, and then we were going to go
8 to comments that would be part of the official
9 public record of comments. Perhaps that message
10 didn't get through clearly, but I did try to make
11 that message clear.

12 As far as the other things that
13 have been said at the meeting during this
14 question-and-answer period, certainly all of that
15 information is in the public record, in the
16 planning record, because it's all being recorded,
17 and it's all being taken down by the court
18 reporter. So that we have the verbatim record of
19 everything that everybody said tonight, and all the
20 places where we said we think we can address that
21 in the final EIS, or we'll look at that. And so
22 that's all there.

23 As far as the comments that were
24 interwoven, I guess, I'm thinking, as a practical
25 matter, we're probably going to -- we'll certainly

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1 consider everything that is there as part of what
2 has been said. You probably should not expect to
3 see a copy of that part of the record included in
4 the final EIS as part of the official comment and
5 response.

6 MS. THORPE: If I could just
7 comment: This is not the only time we are
8 receiving comments. We're receiving written
9 comments up until September 24th.

10 MS. TERREL: I know that.

11 MR. GRIFFIN: And there are
12 comment sheets in the back.

13 MS. HALL: For anybody that wants
14 to use them. So there are other opportunities as
15 well.

16 Right here?

17 MS. HOOD: Dixie Hood. Are the
18 comments that are submitted in writing before the
19 deadline ones that you will respond to in the
20 printed record, and will they be identified by
21 source?

22 MS. HALL: Yes. How we
23 specifically treat that in the final EIS is
24 probably going to depend a little bit on how many
25 comments there are and the diversity and range of

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1 them.

2 But, you know, we have the option
3 of including every single letter and responding to
4 every single sentence separately, or of doing an
5 analysis that identifies, essentially, the various
6 issues people raise, and the facets of those
7 issues. Then we address those issue by issue, or
8 comment type by comment type, whether one person
9 said it or 50 people said it.

10 MR. REGES: Are you planning -- I
11 thought I heard there was a subquestion there. Are
12 you planning on referring to the commentator by
13 name or by the source, referring to him or her?

14 MR. GRIFFIN: There are two ways
15 to handle that. One is you print the letter, and
16 on the other side of the page, you say, "This is
17 our response to this. This is our response to
18 that."

19 If we get 500 postcards that all
20 say, "No limits on helicopter tourism," what we'll
21 probable do is we will probably respond to the
22 comment, "No limits on helicopter tourism," and
23 list all the people who provided that comment, and
24 then just say -- just give a paragraph response to
25 it.

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1 MR. REGES: Okay. I have a
2 question as to would you accept comments on behalf
3 of an association, so that some citizens can remain
4 anonymous if they so choose?

5 MR. GRIFFIN: Sure.

6 MS. HALL: Sure.

7 MS. HARRIS: I'm sorry I haven't
8 followed this issue all the way through, but could
9 you just tell me which alternative we're closest to
10 right now? What are we operating under now?

11 MR. GRIFFIN: Laurie, help me.
12 Our proposed action --

13 MS. THORPE: It would be our
14 proposed action, Alternative E, except for
15 operations in the proposed new areas. We are
16 operating in the 1995 EIS study area.

17 MS. HARRIS: So this year we will
18 probably make the 19,000 landings, do you think?

19 MS. THORPE: I doubt we'd achieve
20 that. The numbers are showing we are pretty much
21 the same as we were last year and the year before.

22 MS. HARRIS: So have we had any
23 hours restrictions to date, or is this something
24 brand new?

25 MS. THORPE: Currently, they are

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1 restricted to 8:00 a.m. to 8:30 p.m. -- or is it
2 8:30 a.m. to 8:00 p.m.? It's one of those.

3 MS. HARRIS: Thank you.

4 MS. HALL: It's 11 and a half
5 hours.

6 MS. HART: This will be my very
7 last one, I promise. Do you consider the
8 soundscape part of the environment -- you, the
9 decision maker?

10 MR. GRIFFIN: Oh, don't point your
11 finger.

12 MS. HART: I'm sorry, but you are
13 the guy.

14 MR. GRIFFIN: Do I consider the
15 soundscape? Do I consider a quiet mountaintop part
16 of the affected environment? Is that what you mean
17 by "soundscape"?

18 MS. HART: I'm asking --
19 specifically, the soundscape is the general label
20 that the National Park Service applies to the
21 audio -- whatever, the environment that you hear.
22 "Soundscape" is sort of a term to describe what you
23 hear, and I'm wondering -- water is something you
24 can feel. I think you would consider water part of
25 the environment, or a plant or an animal.

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1 all listening to each other and enjoying nature
2 with none of us around.

3 MR. GRIFFIN: If there are none of
4 us around, what is the point? I'm sorry.

5 MS. HART: Spoken like a true --
6 okay. I'm very serious about this, though, because
7 I think this is the crux of what we're talking
8 about, and it's the crux of what you make your
9 decision on.

10 Is what we are hearing -- it
11 definitely shows up as a description of parts of
12 different expectations for different things. The
13 National Park Service definitely includes it as
14 part of their environment, and Congress has had
15 many hearings about noise in national parks, and
16 natural quiet and such.

17 I haven't been able to find
18 anything in the Forest Service documents -- and
19 their searches are not helping with me. I haven't
20 been able to find anything that addresses whether
21 or not the Forest Service officially considers the
22 soundscape as part of the environment or not.

23 And since you are the person
24 making the decision, I want to know what you
25 consider.

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1 And I'm asking if you consider
2 that element of the soundscape, what you do or
3 don't hear, part of the environment? Which I think
4 is critical to this whole document, because that's
5 what we're talking about, really.

6 MR. GRIFFIN: It is not -- you
7 can't pluck it with tweezers out of the experience
8 out there. It's all part of an experience. There
9 are different experience expectations around the
10 forest, depending on what kind of land use
11 designation you are in.

12 If you are in a wilderness
13 someplace, you have a different expectation of the
14 numbers of people, of the sounds you hear, of the
15 things you see.

16 If you are in downtown Juneau, you
17 have a different set of expectations. You expect
18 to see more people. You expect to hear more sound.

19 The soundscape, if I take you
20 correctly, is not something that we manage in and
21 of itself. I think that might be a little bit
22 different than the park service.

23 MS. HART: Say nobody is there.
24 Say no human being is there. There is a deer out
25 there, and a bird, and another bird, and they are

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1 MR. GRIFFIN: I don't have a good
2 answer for you, Karla. This is the first time I've
3 ever heard the term "soundscape."

4 MS. HART: That's scary.

5 MR. GRIFFIN: So you can probably
6 draw a conclusion from that, that I haven't managed
7 for it. But sound is part of the experience on the
8 national forest -- different kinds of sounds,
9 different levels of sounds, natural sounds versus
10 human-caused sounds. That's -- we take it into
11 consideration. I can't say any more than that.

12 MS. HALL: If I can build on that
13 just a little bit, Pete -- and correct me if I say
14 something wrong, but I think this might help a
15 little bit.

16 I think it's looked at in the same
17 way that landscape or visual resource management is
18 on the national forest, as in the focus of the
19 visual resource management is: Where do the people
20 see the landscape? From what vantage point do they
21 see it? What is the impact of changes on the
22 visual landscape to the people who see it? What is
23 the expectation of the people who see it? Are they
24 driving by on a highway, or are they recreating in
25 a wilderness area?

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1 And I think we have looked at it
2 in about the same way. We haven't called it the
3 "soundscape," but obviously we have been talking
4 about the effect of noise on people, or the effect
5 of noise on animals.

6 It's obviously not as far as you
7 are going, and it's obviously not using the word
8 "soundscape" in the way that you are using it. But
9 the concept is sound or noise in the context of the
10 people or the animals who hear it, in the same way
11 that the landscape assessment is in the concept of
12 the people who see changes.

13 MR. GRIFFIN: Boy, I'm glad that
14 has been written down.

15 MS. HALL: Okay. I'm now on the
16 record as having said that.

17 Okay?

18 MS. CARLS: Becky Carls again. If
19 I could just clarify my statement before, I don't
20 want the gentleman across the aisle from me
21 thinking I'm trying to promote the Mendenhall
22 Glacier as a landing spot for the helicopters.

23 MR. DIPPOLD: Then don't talk
24 about it.

25 MS. CARLS: I want to clarify my

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1 not fight.

2 MS. HALL: Okay. The point is
3 made, I think.

4 Back here?

5 MR. QUIGLEY: The Forest Service
6 issues allowable use permits, such as for the
7 icefield. Is there a curriculum or guidelines or a
8 list of what is allowable for the private sector to
9 apply for the permit, to do such a thing, such as
10 dog mushing? And in an EIS, in an effort to do
11 this on the Juneau Icefield, why was it taken into
12 consideration, when historically, there has never
13 been dog mushing in this region ever? Why is that
14 going on? Do you see my point?

15 Is there a list in the allowable
16 uses as to -- you know, what will they come up with
17 next? Slides on crevasses, or water world? You
18 know, you can do anything, in effect, unless there
19 are some guidelines for it. What are the
20 regulations?

21 MR. GRIFFIN: Right. The
22 guidelines that we operate under is the Tongass
23 Land Management Plan. If something is consistent
24 with the forest plan, we can consider it.

25 MR. QUIGLEY: Dog mushing on an

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1 statement, and I don't want it taken out of context
2 by the "Empire."

3 Until the study comes out on
4 heliports in about two weeks, I would like to know
5 that the areas that we are looking at are available
6 to be looked at. Maybe there will be some
7 miraculous black hole that will suck in all the
8 noise.

9 But we can't know that until the
10 study comes out. It probably will come out that
11 the place would be a horrible location, but there
12 are little places that you can tuck in up there at
13 the glacier where maybe it would work out.

14 I would like just to let the study
15 come out, and to know that it can come out, and we
16 can look at the results, and that any of the places
17 they look at are available to meet that.

18 MR. DIPPOLD: I don't want to
19 argue this, and this is not the place to do it --

20 MS. CARLS: That's fine.

21 MR. DIPPOLD: -- but you are
22 assuming that you need heliports, and you need more
23 tourists, and that's not an assumption you can
24 make.

25 MR. GRIFFIN: Okay. Gee, let's

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1 icefield?

2 MR. GRIFFIN: Sure.

3 MS. HALL: Okay. Back here?

4 MR. CLUTTON: Bill Clutton. I was
5 just going to say, just for an historical anecdote
6 to that, my understanding is that one of the most
7 famous mushing treks that occurred in Alaska
8 occurred from the Taku Glacier Lodge all the way
9 across the Juneau Icefield on up to Fairbanks. So
10 there is precedent for dog mushing in this area.

11 MS. HALL: Thank you.

12 Right here?

13 MS. LEVINE: Yes. Joyce Levine.
14 I'm just wondering what criteria you use for noise?
15 For example, being that you were unsure of how you
16 were going to take your comments from people who
17 don't live here, compared to people who live here.

18 Somebody who comes up here from
19 New York City; somebody who comes up here from
20 Dallas, Texas; somebody who comes up here from some
21 big city, comes into Juneau and goes, "Wow, it's
22 quiet here."

23 Well, there are 15 helicopters
24 flying around all over, and people in Juneau are
25 thinking that it's noisy. I'm wondering what

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1 criteria you are using to determine what noise is.

2 MR. GRIFFIN: You are asking me
3 the question if I have a standard, where something
4 above the standard is not acceptable, and something
5 below the standard is acceptable. I don't have a
6 standard. We measured sound levels and durations
7 of sound levels to make evaluations between the
8 alternatives. Some are more noisy than others.

9 And that is -- I don't have a
10 standard that says "Anything above this is not
11 acceptable," or "Anything below this is completely
12 acceptable." I don't have a criterion like that.

13 MS. HALL: Okay. More questions?
14 Right back here?

15 MR. BENTLEY: I'm Mr. Bentley
16 again. Pete, can you briefly describe what your
17 monitoring program might be for monitoring these
18 activities, and is your funding anywhere close to
19 sufficient to what you would like to have for a
20 monitoring program?

21 MR. GRIFFIN: Our monitoring
22 program in the past has been monitoring activities
23 up on the icefield and administering our special
24 use permits with the helicopter companies and folks
25 that are running operations up on the icefield.

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1 We have not -- up to a couple of
2 years ago, we hadn't done much monitoring at all of
3 the helicopters in flight. But we're starting to
4 do that more, particularly with the work that Don
5 has been doing, which has given us a lot more data
6 than we have ever had before on monitoring goat
7 behavior and goat populations, monitoring the
8 number of flights and the distances from mountain
9 goats.

10 So we have been doing better
11 there. We need to do more because we get questions
12 all the time. You know, are you keeping track?
13 Well, there is only so much we can do to keep
14 track.

15 There is never enough money to
16 monitor everything that you would like to, and I'll
17 just leave it at that. We need to establish some
18 priorities for monitoring, and take a look at
19 checking those things that are the most important
20 things to be checked. And some things that are
21 nice to know, but that are not critical, we let
22 slip by.

23 MR. BENTLEY: Have you considered
24 a user fee to support your monitoring program in
25 this particular activity?

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1 MR. GRIFFIN: You know, that is --
2 I think that's a good point. There was legislation
3 in Congress a couple of years ago, and the name of
4 it just suddenly slipped out of my mind --

5 MS. THORPE: Cost recovery.

6 MR. GRIFFIN: Cost recovery.
7 Thank you. Cost recovery legislation, where we
8 would charge a fee up front that would cover the
9 cost of administering the permits and doing the
10 monitoring.

11 That fee would be passed on to the
12 permittees, and that is something we have not had
13 the authority to do in the past, and it would make
14 a big difference in our program.

15 I know that regulations are being
16 looked at right now back in Washington. They have
17 been somewhat delayed. I don't know whether that
18 has to do with the new administration or not. But
19 we're probably a year away from doing that, being
20 able to do something like that.

21 MR. BENTLEY: Well, I would
22 suggest that we -- I do not have any idea whether
23 the fees charged at the Glacier Visitor's Center or
24 campgrounds or the cabins out in the Tongass Forest
25 are adequate to cover those programs. If they are

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1 not, they should be. They should be borne by the
2 users, even if I'm a user.

3 To me, it's basic enough that it
4 doesn't deserve much more discussion, and the same
5 would go to our needs for monitoring, at whatever
6 level that might be, for the helicopter flying.

7 MR. GRIFFIN: Good point.

8 MS. HALL: Okay. Question?

9 MS. CRAIG: My name is Lori Craig.
10 Following up on Mr. Bentley's question, we have a
11 demonstration project -- isn't that correct? -- to
12 collect fees at the visitor's center. How does
13 something like that go about -- using that
14 mechanism to do some monitoring, get some funding?

15 MR. GRIFFIN: That has actually
16 been attempted -- the recreation fee demo program
17 is a national program established by Congress a
18 number of years ago that said the Forest Service,
19 the Park Service, and I think the Fish and Wildlife
20 Service can charge fees for use of facilities, and
21 the agencies that did that on a demonstration
22 project -- it's not a permanent legislation, but we
23 can take the fees and then turn them right back
24 into the program, keep them right in the area.

25 And we do so with the Mendenhall

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1 campground and the Mendenhall Glacier Visitor's
2 Center, and also the Juneau Icefield has a 50-cent
3 fee per passenger under the fee demo program. We
4 have used some of those fee demo monies in doing
5 some of our mountain goat work.

6 Some of the other regions in the
7 United States have taken their special use permit
8 fees and turned those into a fee demo program, and
9 collected the fees, the entire fee, on the forest,
10 and used the money that way. But that was specific
11 to those regions, and we did not have that
12 authority here. But that is something that may be
13 considered if the fee demo legislation ever becomes
14 permanent.

15 MR. REGES: Does it require
16 congressional changes, or is it a regulatory
17 change, statutory or regulatory?

18 MR. GRIFFIN: I'm not sure which.

19 MR. REGES: We'll find out.

20 MS. HALL: Okay. Any more
21 questions? Okay.

22 I think, given where we are in the
23 evening - I have about 25 minutes of 9:00 - and
24 I'm going to suggest that we just take a little
25 stand-up break for a couple minutes. I want to

1 signed up have had their opportunity, then we'll go
2 back to the ones who haven't finished yet. That
3 way we'll give everybody who has signed up a chance
4 to get their comments in before it gets too late.

5 So if you want to take more time,
6 then we will just put your name at the bottom of
7 the list, and go through it again.

8 So if that works for everybody,
9 let me start with Ron Dippold. You are first on
10 the list.

11 MR. DIPPOLD: Ronald Dippold,
12 D-I-P-P-O-L-D. I'm about a 35-year resident of
13 Juneau. I live up near the glacier.

14 My comments are basically - I'm
15 speaking for myself, not for any group or anything
16 like that. As far as the EIS process, there is
17 really not much to comment on because it's one of
18 the worst I have seen in 35 years. It doesn't
19 cover all the subjects.

20 Comments so far as the
21 alternatives - I'm answering the sheet here. The
22 alternatives are not worth commenting on because
23 you did not do an analysis that is worthwhile. You
24 can't comment on the alternatives. So, if you
25 don't have the data, you can't make comments.

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1 have a quick conference with Pete about the
2 structure for the rest of the evening, and then we
3 will go into the formal comment period.

4 Thanks very much.
5 (Off record)

6 MS. HALL: So if we can get people
7 kind of back in place and attending, we're going to
8 go into the comment period now. What I have is,
9 right now, 13 names on the list for comments. Do
10 we have anybody else who hasn't signed up who
11 thinks they'd like to make comments?

12 So for the time being, we have got
13 your names here. In order to ensure that the court
14 reporter gets your name and gets your comment and
15 doesn't miss anything, I'd like to ask you to state
16 your name clearly, to stand up and state your name,
17 and then speak as clearly as you can to make sure
18 that they can get your comment exactly as you state
19 it.

20 In the interests of time, what
21 we'll do is have a three-minute limit on your
22 period to speak. If you are not finished at the
23 end of your three minutes, I'll just ask you to
24 stop at that point, if you will, we'll go on to the
25 next person, and as soon as all the people who have

1 Significant items you did not
2 comment on: You didn't comment on cost of fuel.
3 That's a big thing. Helicopter fuel, bus fuel.
4 What is the cost of doing that?

5 All the different - you are going
6 to increase it five, ten times. What is going to
7 be the cost on that?

8 Increase in bus traffic to the
9 heliports, helicopters, or wherever they are going
10 to be. We have already got too many busses out
11 here now.

12 Base expansion down here, I guess,
13 on the flat lands, where they are at, where they
14 are located now. What about base expansion? Maybe
15 it's not Forest Service prerogative to say yea or
16 nay, but it's going to be an environmental effect.
17 This is wetlands, you know, if you want to look at
18 it that way.

19 Safety - I am real concerned
20 about safety. I've spent more hours flying in
21 helicopters and fixed-wing planes than I hate to
22 count, and I always look for that black ball to
23 come up. I never flew with anybody, if I could
24 help it, who wasn't up here at least two or three
25 years.

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1 Most of the folks -- because they
2 have to bring up a lot of people for the summer.
3 They may be good pilots, but they do not know this
4 country. They don't know the mountains.

5 We had a prime example a couple of
6 years ago when a bunch of people from New Zealand,
7 Australia, and I think Germany -- boom, you know.
8 They ran out of airspace. Killed a bunch of people
9 and hurt a bunch of people.

10 Safety is important. You are not
11 going to have safety, no matter what they say about
12 hours, if they don't put in -- unless they bring in
13 a lot of pilots that stay here year-round to fly
14 and know what they are doing. That's critical.
15 Plus the risk to the rescue people with the
16 inexperienced pilots up here.

17 Increased cruise ship traffic.
18 You couldn't answer that question about whether
19 it's going to have any effect on cruise ship
20 traffic. Is it going to lower it, have no effect?
21 Who knows? You didn't cover that.

22 Effects on the walk-up people,
23 people who walk up to the icefield, who work their
24 butt off. I've done that back, you know, 20 years
25 and 100 pounds ago. I walked up there a lot of

1 than looking into any research.

2 Impacts on learning, especially
3 for children in daycares, are missing. Impacts on
4 communication, especially for people who have any
5 hearing problems or people who are just acquiring
6 language skills, are totally missing.

7 Nonquantifiable impacts are
8 dismissed as being nonquantifiable, difficult to
9 get, not available, and, therefore, not considered.
10 NEPA specifically says that you have to address
11 nonquantifiable impacts, as well.

12 So, basically, I'd hope that
13 before September 24th, the comment deadline,
14 everybody who is involved in this would read the
15 Forest Service manual, the relevant parts relating
16 to social and economic analysis, read the Forest
17 Service Handbook relating to that, read NEPA, read
18 the instructions relating to environmental justice,
19 and so on, so that you are able to take this on,
20 because you have got a tight deadline for getting
21 this done in January.

22 Thank you.

23 MS. HALL: Okay. Thank you,

24 Karla.

25 And the next on the list is Dylan

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1 times, and the last damn thing I'd want to see is a
2 helicopter, unless it was up there for a reason.

3 A helicopter is a great machine.
4 When I was out in the woods for 30 days or so and
5 one came to pick me up, I felt good about it. But
6 when you got them buzzing around here, it's like a
7 nuisance factor. You might just as well run snow
8 machines around the Loop Road.

9 MS. HALL: Okay. Thank you,
10 Mr. Dippold. That's your three minutes. Do you
11 want me to put you on the bottom of the list?

12 MR. DIPPOLD: Yes, please. I've
13 just started.

14 MS. HALL: Okay. Karla Hart?

15 MS. HART: Thank you. My name is
16 Karla Hart. My comments on this basically -- I'll
17 submit written comments, but the social and
18 economic analysis is totally flawed or missing.
19 There is nothing of substance to be able to comment
20 on because there is nothing of substance in the
21 document.

22 The health effects of noise are
23 missing and totally flawed. There are many
24 references out there that you could address, that
25 were not addressed. Things were dismissed rather

1 Quigley.

2 MR. QUIGLEY: Dylan Quigley. I'm
3 a citizen of Juneau. I just want to thank
4 everybody here. I have never really done this.

5 In essence, what we're really
6 talking about is quality of life in Juneau. And
7 everybody in this room is somewhat of a transient.
8 You know, we all stem from the miners coming into
9 this environment. We all have impact; all our
10 lives impact this area.

11 And the helicopter industry has
12 just moved right in, in the last ten years, last 15
13 years. I think it's quite apparent, and it's
14 somewhat disrespectful to those that have been here
15 a long time and know this, and try to express their
16 concerns over this, and the industry, being that it
17 is money-related, is just moving right in.

18 It's hard to go out in the
19 summertime months, when you don't have that much
20 heat, and when you do, you go out there, and you
21 are hiking and sweating, you know, like you worked
22 to get to a place, and you feel embarrassed. You
23 brought friends, your family from your future world
24 down in the Lower 48, and you hike way up in the
25 mountains, and there is helicopters all over the

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1 place. It's embarrassing, downright embarrassing,
2 you know?

3 It's a feeling you get from this
4 place, and it's being dissolved. It's being
5 absolved by the industry. And it's very emotional.

6 My nephew just died of leukemia.
7 Not even three. One of the first words out of his
8 mouth was "helicopter" because the flight path had
9 been chosen to go over our house at Lemon Creek.

10 They won't fly at 1,500 feet. You
11 can call them all you want. And they are still
12 just right there at 550, 700 feet.

13 And little kids are apparent to
14 this. They see these things. And I think --
15 that's what I mean when I say we're not looking at
16 the people that live here a long time, because they
17 see these things. And kids do, too.

18 In the base line information, base
19 line facts will become -- unless they are started
20 and implemented and looked at, will -- over time,
21 won't be there, because all this other information
22 just passes by.

23 This is a new industry. It is
24 just rapidly growing, and I think it's my opinion
25 that this EIS isn't really taking into total

1 Alternative B.

2 Reduce the landings from the 1999
3 actual use level by 7 percent per year. You
4 currently have it 9 percent above what was
5 authorized, but you could do it at 7 percent a year
6 below the actuals, to the 1994 actual use level.

7 Alternative B, as it now stands,
8 offers no noise relief next summer, and only some
9 the following summer. Two more summers at these
10 noise levels are two too many.

11 Six days of operation would seem
12 to be a more appropriate option. I believe that is
13 how many days of cruise ship operations there were
14 in 1994, and this might come closest to helping us
15 return to those lower noise levels, which seems to
16 be where the community was unhappy but not
17 incredibly unhappy.

18 There should be no new landing
19 areas on the icefield, which would spread the noise
20 around even more.

21 I want to quote from the previous
22 draft -- final EIS which says, "It is recognized
23 that any increase in helicopter traffic will likely
24 increase the percent of the population highly
25 annoyed by helicopter use. This percent will

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1 consideration the people of Juneau and the quality
2 of life thereof. It's all apparent.

3 That's all I have to say.

4 MS. HALL: Okay. Thank you.
5 Becky Carls?

6 MS. CARLS: Becky Carls. Your
7 DEIS --

8 MS. HALL: Becky, maybe if you
9 would stand up?

10 MS. CARLS: I can talk louder if I
11 stay seated.

12 MS. HALL: Okay.

13 MS. CARLS: Your DEIS speaks
14 frequently to mitigating the noise caused by
15 flightseeing. The only truly effective long-term
16 solution available to us now with the current
17 routes and heliports in place would be to
18 significantly reduce the number of flights.

19 I notice you have only one
20 alternative which reduces landings below the 1999
21 actual use levels, and four which raise the number
22 of landings above those levels.

23 I think another reduction
24 alternative should be introduced, and I propose the
25 following brief description of a modification to

1 likely remain low at the mid levels of use
2 authorized by this alternative, as indicated by the
3 level measured in the June 1992 sound study."

4 And I don't think that is what
5 happened. I think you got a lot of really annoyed
6 people.

7 I'd like to suggest, where you are
8 talking about allocations, a minimal allocation of
9 500 to 1,000 per company, so that the little
10 companies don't go out of business, and the
11 remainder of those landings to be open to a bid
12 award process.

13 I'd like to thank you all for your
14 hard work on this draft EIS, which is a much better
15 document than -- is a much better document than
16 your old final EIS. There is a lot of work in
17 this, a lot of really good information, and I know
18 there is a lot more that has to be done.

19 But, you know, it's a really good
20 document, and I enjoyed reading it.

21 MS. HALL: Thank you. Joyce
22 Levine?

23 MS. LEVINE: Yes. My name is
24 Joyce Levine. I have been a resident of Juneau for
25 17 years, and I'll comment further in a letter to

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1 the Forest Service.
2 But basically, I think it's
3 important to get impacts from the year-round
4 residents instead of seasonal workers from the
5 Lower 48 who come up, as it is important for people
6 who live here to have more of an impact on their
7 home than people who just come to visit for the
8 summer.

9 I think it's very important to
10 consider the impacts of noise and its health
11 effects. It's incredible now the impact that noise
12 has on stress levels, just -- I think the Forest
13 Service needs to go further into the impacts of
14 noise and more fully report that.

15 We need to limit the number of
16 landings and hours during the day and in the days
17 during the week to lower levels. I think that
18 there should be at least a couple of days during
19 the week that people in Juneau can have days off
20 from helicopters, where it can be quiet, and limit
21 the amount of hours.

22 I think that pilots -- we have
23 had -- I think it was last year there was an
24 incident on the Herbert Glacier where there were
25 three helicopters, one after the other, that

1 MS. HALL: Thank you, Joyce.
2 Mark Rorick?
3 MR. RORICK: My name is Mark
4 Rorick. I'm representing the Juneau Group Sierra
5 Club. We'll have an addendum or an addition to
6 these comments before the comment deadline.

7 I'd like to thank Laurie for all
8 her hard work, and Don for traipsing around the
9 mountains -- which sounds fun -- and for Pete to
10 sit here and take the abuse. You have to have a
11 thick skin to work for the Forest Service these
12 days.

13 First, I'd like to say I have read
14 the entire scoping file, and the publishing notes,
15 and that while the DEIS never comes right out and
16 says it, there is no neighborhood or recreation
17 trail from Pt. Bishop to Echo Cove that is not
18 being adversely impacted from flightseeing
19 activities.

20 Of course, the Forest Service
21 lists the trails and neighborhoods individually,
22 but you could have just saved the space and simply
23 said that during the tourism season, back-country
24 neighborhood peace-and-quiet values throughout the
25 borough are being compromised.

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1 landed, crashed; landed, crashed; landed, crashed.
2 These pilots were -- I'd be
3 surprised if they were experienced. But we need to
4 have pilots -- the Forest Service needs to require
5 that the pilots have at least two or three seasons
6 of -- in Southeast of flying, and not just be able
7 to come up and fly, and not be aware of the impacts
8 or the problems that exist from flying in Southeast
9 Alaska.

10 I think safety is important, and
11 it needs to be further addressed.

12 The impacts of helicopters on
13 birds I don't think has been fully addressed.
14 Eagles fly constantly, soar constantly over the
15 glacier, and I think their patterns of flight are
16 definitely affected by the helicopters. And I
17 think it's ridiculous to think that they are not.

18 I don't think we should have any
19 new landings or increased landings on the glacier.
20 And I wonder also what the point of the limit is
21 that the Forest Service is going to come to before
22 it says, "Enough is enough."

23 Thank you. And thank you for
24 being here tonight and taking our comments, and
25 allowing me and other people to speak. Thank you.

1 The criteria for authorization of
2 outfitter guide operations include minimizing
3 impacts on highly populated local areas, and
4 ensuring that operations can be carried out in a
5 compatible fashion with existing or expected use by
6 the nonguided public.

7 I suggest that the current level
8 of sightseeing is obviously violating these two
9 criteria. The expected experience, even in a
10 developed area, such as Cowee/Davis Creek, does not
11 include being impacted by helicopter and other
12 flightseeing noises every two to three minutes, all
13 day long, on every sunny day between May and
14 September.

15 The standards and guidelines
16 describe an expectation that the user would meet
17 less than ten parties per day, and that's sight and
18 sound. The experiences of human activity should be
19 rare.

20 The cumulative impacts of the EIS
21 must address the impacts of permitted tours, in
22 combination with other activities, even if these
23 activities are outside of the control of the Forest
24 Service.

25 I would suggest that the Forest

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1 Service, when they are considering how many
2 landings to permit -- and they are assessing the
3 impacts that are cumulative activities that are
4 ongoing, would do well to state that the number of
5 landings they are going to permit would be based on
6 how well the flightseeing industry mitigates those
7 impacts, both the permitted ones and the
8 nonpermitted, nonlanding flightseeing impacts.

9 Voluntary compliance -- adherence
10 to the voluntary compliance is key in doing that.

11 MS. HALL: Mark, that's your three
12 minutes. Would you like me to put you down on the
13 bottom of the list?

14 MR. RORICK: I'd like to ask you
15 for 30 more seconds.

16 MS. HALL: I'll give you 30 more
17 seconds, because we're close to the end.

18 MR. RORICK: As I say, I'd like to
19 state the obvious. The main problem is not with
20 what happens on the icefields, although we'd like
21 to see some portion of them also set aside for
22 quiet use. But the real problem is what happens
23 between here and there.

24 And I'd like to say that all the
25 flightseeing operators -- they are hard-working

1 irretrievable commitment of resources, which was
2 dismissed in the draft EIS, I consider the
3 potential loss of my sanity and the value of my
4 home to be an irretrievable commitment of
5 resources.

6 Thank you for being here tonight.

7 MS. HALL: Okay. Thank you.

8 Bill Clutton?

9 MR. CLUTTON: Hi. My name is Bill
10 Clutton. That's C-L-U-T-T-O-N. I don't have
11 anything prepared, so I really don't know where to
12 begin on this, except to say that I try to apply to
13 this thing that I apply to most things in life.
14 And I'm not always successful, and I really
15 question whether a good number of other people are
16 successful in that.

17 And that is, when you look at both
18 sides, there is a good side and a bad side to
19 almost everything that is out there. I can't think
20 of anything that is all good or all bad.

21 We in Juneau -- and, by the way,
22 I'm an 18-year resident of Alaska, almost 19 now,
23 and a ten-year resident of Juneau. So I'm not just
24 passing through.

25 But we're blessed or cursed,

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1 people. They are honest, they have families, they
2 hold family values, and that the Sierra Club
3 respects their position.

4 MS. HALL: Okay. Thank you.

5 Everett Hinkley?

6 MR. HINKLEY: Yes. My name is
7 Everett Hinkley, and I want to state that I support
8 tourism, and I recognize the importance of tourism
9 to the local economy. I do not, however, support
10 high-impact activities like flightseeing.

11 Helicopter noise in Juneau is a
12 problem, period. Helicopter flights should not be
13 flying over residential neighborhoods.

14 I believe in daily caps on
15 flights, rather than seasonal caps, and I think
16 that it's important that everybody be reminded that
17 these landing permits are a privilege and not an
18 entitlement.

19 There was a couple of comments
20 made about property assessment here earlier,
21 property assessment in Juneau, and I think property
22 assessment in Juneau by the assessor is a joke and
23 does not adequately represent the negative impacts
24 to people's property values.

25 Finally, regarding the

1 depending on how you look at it, in having our town
2 be butted right up against probably the most
3 beautiful national forest in the national forest
4 system.

5 We're the city that is located at
6 basically the entrance. People who pay tax
7 dollars, which include not only the people in this
8 room, but everybody throughout the rest of this
9 country, pay to have this Forest Service even in
10 place, and this forest in place, and protected.

11 And they have -- aside from a
12 privilege, they also have a right to come and enjoy
13 their national forest. Not all of them are blessed
14 with the great health to hike back up in these
15 trails, like a good number of other people are.

16 The only way they can enjoy the
17 wonders that we have here are by air. Think about
18 how many times any of you have gone to another
19 state, whether it be Hawaii or down to Seattle or
20 to the Tetons, or to any of the other forests or
21 parks in our systems. Have any of you ever given
22 any thought to the impact that you have placed on
23 the people who live in those areas?

24 I seriously doubt that you have,
25 certainly not to the degree that you have here,

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1 because it's not in my backyard. And that's really
2 what it boils down to. How many planes have taken
3 off out of this airport this evening? At least a
4 half a dozen.

5 Nobody thinks of the noise of
6 those airplanes, because they get on those
7 airplanes, and they take them someplace. So as
8 long as it takes them someplace, they don't care
9 about it. When it's somebody else, they suddenly
10 do.

11 To turn the table another way,
12 look at the other side of another coin. Yes,
13 people hiking down a trail, some of them, may
14 object to seeing a helicopter or a plane or
15 anything fly over. What about the other people who
16 are in the helicopter looking down expecting to see
17 a pristine, uninterrupted national forest, and they
18 see trails and people hiking through there?

19 I'm not saying one is more valid
20 or less valid than the other. I'm simply saying
21 there are two sides to the coin.

22 MS. HALL: Okay. Thank you.
23 Would you like me to put you down at the bottom of
24 the list to say more?

25 MR. CLUTTON: That's just about

1 difference between eight years ago and the present
2 in terms of the impact on our community. And I
3 think both in terms of the routes, and in terms of
4 frequency; that it's really important to reassess
5 what is happening.

6 I made mention earlier of the
7 question of whether it's a social or economic
8 impact in terms of land values, property values. I
9 think it would really be helpful to get some
10 anecdotal evidence from realtors in Juneau.

11 MS. HALL: Okay. Thank you. At
12 this point, we have come to the end of the list of
13 everyone who signed up, except for Mr. Dippold, who
14 we're going to continue on with again.

15 Before we do that, I wanted to see
16 if there is anyone else who has not signed up, who
17 would like to.

18 MS. TERREL: I did sign up.

19 MS. HALL: I'm sorry. What is
20 your name?

21 MS. TERREL: Paula Terrel.

22 MS. HALL: Oh, I'm sorry, Paula.

23 I think when I said "David Turbo" earlier --

24 MS. TERREL: I have been called a
25 lot of things before, but --

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1 it. Thank you.

2 MS. HALL: Okay. Thank you very
3 much.

4 David Turbo? Is Mr. Turbo here?

5 Okay. The next name on the list
6 is Dixie Hood.

7 MS. HOOD: I came this evening to
8 listen, mainly, and had not had an opportunity to
9 read through the document. But I did want to say a
10 couple of things.

11 About eight years ago, some
12 friends from California came to visit. They wanted
13 to take a helicopter ride, and they invited me to
14 go. They paid my way, because I hadn't done this
15 before and really didn't think I could afford to do
16 it.

17 And we went to the Taku Glacier.
18 It was really a thrilling experience. I enjoyed it
19 very much. And I think it was something that they
20 thought was a very special opportunity also.

21 So that -- and things like the
22 tramway in Juneau, I can really appreciate in terms
23 of it being something special for people who might
24 not access that environment otherwise.

25 But I think that there is a big

1 MS. HALL: I can see the "Paula"
2 in that "David" now. I'm sorry. By all means,
3 it's your turn.

4 MS. TERREL: As I said, I have
5 been called a lot of things --

6 MS. HALL: But not David Turbo?

7 MS. TERREL: No. Anyway, my name
8 is Paula Terrel, and I'll make this brief.

9 I have lived here 28 years. The
10 first year I came I actually took a flight over the
11 Mendenhall Glacier. It was beautiful. It was a
12 fixed-wing. I don't think we had a helicopter.
13 I have a B&B on Thane. Many of my
14 visitors, my guests, actually do take helicopter
15 flights, even though they are independent tourists.
16 They are not from the cruise ships.

17 What this gentleman said about
18 there are two sides to every coin, I can understand
19 that, and I believe that's true. I think you need
20 to establish a balance, because it has gotten out
21 of balance.

22 I think that is what I really
23 would like to say, is that it has been disrupted,
24 and it has grown so that we have an imbalance here.

25 I know you wanted to hear

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1 specifics about the alternatives. I support what
2 has been said about the flaws in the EIS. Let me
3 just say a couple of things about the alternatives.

4 The only alternative that I can
5 see that has any reasonable -- barely reasonable
6 hours is Alternative B, which has it from 8:30
7 until 6:00 p.m. I think the other alternatives
8 that have the hours going until 8:00 is just
9 insane. This is the time when people come home
10 from work, when they are just about to have supper,
11 and they should be able to enjoy some quiet.

12 The other thing that I would say I
13 like about Alternative B is that it takes the
14 flights back to, as I understand it, the 1994
15 level. And I know that the industry doesn't want
16 to see that. My thought or one of my suggestions
17 might be that why can't we go back to that level,
18 the '94 level, for whatever period of time it takes
19 for the industry to put some noise abatement
20 equipment on their helicopters that works, and then
21 reevaluate it?

22 In other words, if they say it's
23 going to take us five years, then have 1994 levels
24 for five years until they can come up with their
25 noise abatement equipment, or however they do it.

1 45 to 57 decibels. The CBJ study put us at 25 to
2 30 decibels.

3 There is a significant difference
4 in what is actually background and what is
5 fixed-wing aircraft.

6 So I would suggest that you either
7 completely discard your 1999 noise study, or at
8 least take it with some fairly significant grains
9 of salt, because that is a serious problem with it.

10 I want to repeat a request that
11 was made earlier, and that is: Don't overstate the
12 economic benefits to the community. I think that a
13 lot of the studies and plans and things we have
14 seen come out so far are flawed in that they are
15 biased toward overstating the economic benefits to
16 the community.

17 Let's be realistic about our
18 numbers. Let's see what really is the economic
19 benefit without hyperbole.

20 Landing-free zones should also be
21 overflight-free zones. As I look at your map of
22 the flights, it just crisscrosses all of Juneau.
23 Every place that I could possibly go on foot or by
24 boat, it's got an overflight zone.

25 So I would prefer to see some

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1 And then reevaluate it. Then if it's quiet, and
2 people are okay with it, then maybe there will be
3 some room for growth. But until that time, I think
4 we need to go to the '94 levels.

5 That's basically all I have in
6 this short period of time, but I'll provide written
7 comments and stuff. That's all I have.

8 Thank you, and thank you for being
9 heard.

10 MS. HALL: Thank you, Paula.

11 MR. REGES: I'd like to get on
12 your list. Robert Reges.

13 MS. HALL: Okay. Robert Reges.
14 And, Robert, I'd like to go ahead and allow you,
15 then, to speak, and then we'll get back to Ron.

16 MR. REGES: I'm going to speak as
17 a member of Cruise Control so that Cruise Control
18 has standing later.

19 I'll start with the noise study.

20 The 1999 Forest Service noise study is
21 fundamentally flawed because it counted fixed-wing
22 aircraft as background noise.

23 If you compare the background
24 noise at site 25 -- this is page 3-21 of your
25 DEIS -- which is Sandy Beach, your study put us at

1 corridors, if you will, so that there is some
2 overflight-free zones in the same way you are
3 proposed landing-free zones.

4 With respect to the quiet
5 technology that Paula brought up, I don't know if
6 you can, as a condition of the permit, require it
7 now or require a phase-in, but I'd like you to look
8 at that, you know, to say, "Okay. We're going to
9 phase in quiet technology. You have to have it,
10 and you tell us how long until you get it, and
11 that's when you have to have it by." Let people
12 amortize their investment in their existing
13 helicopters.

14 When you are bidding -- when you
15 are developing the criteria for bids, my
16 understanding is that the National Park Service
17 uses, for want of a better term, "How green are
18 you," when a cruise ship is trying to come in to
19 Glacier Bay National Park.

20 So their bidding process, to get a
21 permit to go into Glacier Bay, is based on, "What
22 smoke controls do you have? What other pollution
23 controls do you have?" Those are the criteria.
24 Not "How much are you going to pay to the Park
25 Service," but "How good are you going to be to the

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1 environment that you are entering?"

2 And I'd like to see you use that
3 as a model, or something like that. There may be
4 other Forest Service facilities that have that as a
5 model.

6 Because tourists have access by
7 helicopter, and a lot of the locals go by foot and
8 things, I'd like you to take that into
9 consideration as to eliminating -- if you have
10 overflight-free zones, keep those closer in. You
11 know, after work, on a Saturday morning, we can't
12 get that far away from downtown. So give us an
13 overflight-free zone relatively close in.

14 I see my time is up. Thank you.

15 MS. HALL: Okay. Do you want me
16 to put you on the list at the end?

17 MR. REGES: I'll supplement it
18 with written comments.

19 MS. HALL: Okay.

20 MR. REGES: Well, put me on the
21 bottom, because I want to tell Pete that he has to
22 take another look at what it means to have a social
23 encounter.

24 MR. GRIFFIN: I didn't hear that.

25 MS. HALL: Okay. Ron, you are on

1 But when they run around in
2 circles, they become a nuisance. Just like a snow
3 machine. It is a great tool, but when they run
4 around in circles, they become a nuisance.

5 Helicopters right now are a
6 nuisance. All they are doing is taking tourists,
7 which are a bigger nuisance, up to the icefield and
8 back.

9 Now, when a helicopter is doing a
10 job, taking somebody someplace to do a job, that's
11 one thing. When they are just using it as a toy, --
12 it is not a legitimate use.

13 The talk about they are all
14 taxpayers and they have got a right -- no. They
15 have got a right. It's their land, just like it's
16 my land, and they got a right to walk up there and
17 enjoy it. They do not have a right to impact the
18 total town so they can hop in their helicopter and
19 go up.

20 Okay. The gentleman said that
21 some of them can't do that. Well, I wouldn't do
22 that much anymore, either, but I used my time as a
23 young person to do that. I didn't use it to climb
24 Mt. McKinley. I didn't use it to walk the Bright
25 Angel Trail, because I made a choice. I made a

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1 again.

2 MR. DIPPOLD: Okay. I'll try to
3 keep it pretty short here. Thanks to everybody for
4 listening.

5 Basically, where I stopped was
6 that your issues are just on noise. You forgot all
7 the other issues or ignored them or they totally
8 went out.

9 I don't know what kind of scoping
10 you had, but it must have been totally flawed,
11 because these issues have been out there for a long
12 time.

13 Safety and fuel are always an
14 issue, major issue. No job is so important, no
15 task so urgent -- you know, Forest Service stuff --
16 that you can't do it right. So safety is always an
17 issue.

18 As I mentioned, it's not even in
19 the index, the word. I went there first, and it
20 wasn't there.

21 Again, the cruise ship traffic,
22 what effect it is going to have on that. I have
23 got nothing against helicopters. When I was out in
24 the woods ten, 20 days, it was nice to hear one
25 helicopter coming to pick me up. Okay.

1 choice when I was young. They made a choice to
2 work, or whatever they do, down in L.A. or
3 whatever.

4 But they have no right to come up
5 here and impact our life with a whole bunch of
6 helicopters running around.

7 It's a bunch of toys. That's all
8 they are. They have no -- that argument that,
9 well, they are all taxpayers, is meaningless. If
10 they want to walk up, cool. Let them walk up.

11 As far as when I go down below,
12 first of all, this is the airport. We heard the
13 sounds taking off. This airport has been here
14 since the war, before the war.

15 If I build a house at the end of
16 the runway, that's my fault. If they build a
17 runway through the Mendenhall Recreation Area in
18 front of my house now, then that's different.
19 Okay? Then they are changing zoning and everything
20 else.

21 So that argument is totally
22 worthless. The helicopters now are just making
23 noise, running around in circles. And as far as --
24 what is really bothering me is that you spend all
25 this time studying wildlife. I didn't even look at

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1 it -- the maps. That's why, because it's not the
2 important thing. It is, but it's a minor issue,
3 very minor, compared to being in the icefield.

4 But the fact is that it has got
5 the eagles' nests. Now, if anybody ever played
6 golf out at the Mendenhall Recreation Area, the
7 Mendenhall golf course out here, and you look at
8 the map, there is eagles' nests all the way from
9 the airport out past there. And those helicopters
10 come over there about 50, maybe 100, 200 feet,
11 seven of them.

12 Then the next group takes off, and
13 goes the other way. The only reason -- if you stop
14 that, I wouldn't have an excuse for missing a ball,
15 you know, because of all the noise.

16 But if we did any logging show or
17 machinery, or a gravel pit that close to eagles'
18 nests, we would have been shut down. And here you
19 are letting them fly over, not a problem at all.

20 So evidently the noise doesn't
21 bother the eagles, or you guys are just being --
22 ignoring it, or Fish and Game is. One of you are
23 doing that.

24 Okay. A little bit as far as
25 wording and usage. You said "Go from A and

1 Okay. The point, Pete, is social encounters. It
2 talks about the sphere being sight and sound.
3 Please take that into consideration.

4 Two other quick points, and those
5 are: If you are looking for some sort of legal
6 basis, or some other basis in which you could
7 assess this moving flight paths around, you might
8 find it in your reliance or discussion of the prior
9 mediation.

10 On page 1-29, you talk about
11 mediation results, and the folks that were there
12 are saying that some things were left out.
13 Specifically, there was a discussion in the
14 mediation of moving flight paths out and around
15 residential areas, and the recommendation is that
16 you should look at the list of the alternatives
17 from the first set of meetings of the mediation to
18 find that discussion. So there was a discussion in
19 the mediation on that.

20 Then the last point is I like the
21 idea of noise budgets. I think that is really
22 worth exploring. I'm glad you've got that in
23 there. I hope you do more with it. I would not
24 want that in lieu of changing flight routes. I was
25 sort of hoping that would be in addition to.

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1 progress to G." Well, I would say you digress.
2 Okay? You are showing your bias about "progressing
3 to G." You are digressing to G.

4 It's pretty obvious that this
5 thing is canned, to get helicopters up flying.
6 This EIS, as far as I'm concerned, as other people
7 have said so -- and I'll close her up -- is not,
8 except for some of the maps are pretty good -- is
9 not hardly word the analysis that is in it.

10 It's the scoping. It's flawed.
11 Your issues, your significant issues, are miniscule
12 compared to significant issues, and it leaves out
13 the most important issues.

14 So I would just close and say to
15 start it over, and try to do it right this time.

16 Thank you.

17 MS. HALL: Okay. Thank you all
18 for your comments.

19 MR. REGES: You are not going to
20 give me another minute, huh?

21 MS. HALL: I was not actually
22 going to overlook that, Robert. I do have you on
23 the list. I just wasn't sure if you were serious.

24 Do you want your --

25 MR. REGES: No, I'm serious.

1 Thank you.

2 MS. HALL: Okay. Thank you.

3 MR. CLUTTON: Could I just have
4 about thirty seconds? I told you I wasn't going
5 to, but I would like to --

6 MS. HALL: Absolutely.

7 MR. CLUTTON: I'd just like to --

8 MS. HALL: I'm sorry. Your name
9 again?

10 MR. CLUTTON: Bill Clutton. And I
11 would just like to -- there is a lot of question
12 about flight routes and things, and all the people
13 who have had questions about flight routes and the
14 helicopters whirling all around in all different
15 directions, I have yet to have any of you
16 individuals come over and talk with me about any of
17 this. Like anything else, you need to have a basic
18 understanding.

19 Have we ever met? I don't think
20 we've ever met.

21 MS. HART: Are you with Temsco, or
22 which company --

23 MR. CLUTTON: I'm with ERA. Come
24 over. I'll lay the maps out. I will show you.
25 I'll walk through it with you, and I'll entertain

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Public Meeting on the DEIS/Helicopter Landings
on the Juneau Icefield 2002-2006

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1 any concerns, and I'll explain why we do things.
2 Most of the time people just
3 simply don't understand why things are being done.
4 Then just know that the noise -- again, there is
5 more than one side to this. So we correct
6 something to maybe appease one of you, and we step
7 on somebody else's toes.

8 We have done whatever we can do,
9 and continue to strive in that direction, to
10 mitigate as much of the impact as we possibly can.

11 We are a business. All of this is
12 money-driven. Name one of you here who works for a
13 living that is not concerned about money, not
14 concerned about your company, that you do it for
15 free.

16 Find me another company in here
17 who is willing to revert back ten years in its
18 progress, without looking at the possible impacts
19 to the people in the community that work in and
20 support that company.

21 And I'm not saying that we
22 shouldn't consider that. We can look at that.
23 That's obviously on the table. But I'm saying look
24 at yourself. Look at your own businesses. Look at
25 how you feed your families.

1 the exact same altitude, and -- all along.

2 I can give you the name and number
3 of the person who would be able to answer that
4 question for you. I'm just not able to. It's just
5 not -- I'm not in that position.

6 MS. HALL: Okay. Well, we have
7 got you on the record now as the giver of the name
8 and the number.

9 Okay. Now, do we have anybody
10 here who would like to make any more comment for
11 the public record?

12 MR. DIPPOLD: I hate to do it,
13 but --

14 MS. HALL: Now, we're not talking
15 about debate here. We're talking about comments to
16 the Forest Service for assistance in preparing this
17 EIS. That's where we are.

18 MR. DIPPOLD: Yes.

19 MS. HALL: And we're not going to
20 get into a debate here. It won't help.

21 MR. DIPPOLD: Right. Money is
22 okay. Businesses are okay. But businesses do not
23 make their money at the expense of somebody's life
24 themselves, of somebody else. You don't go out and
25 dig up somebody's backyard so you can make money.

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1 MS. HALL: Bill, I'm sorry. I
2 don't want us to digress from --

3 MR. CLUTTON: I just want to
4 invite people to come on over. We'll pull out the
5 maps and go over everything.

6 MS. HALL: Okay. Thank you.
7 Now --

8 MS. HART: Can I take this -- it's
9 the ultimate opportunity for you guys to gather
10 data. Would you be willing to put a recording GPS
11 unit into one of your aircraft and fly it for a
12 week so we know where you are really flying, and
13 how high you are flying? We could have it there
14 tomorrow.

15 MR. CLUTTON: Well, I'm -- not to
16 dodge your question, but I'm not that far up the
17 food chain to authorize that.

18 I will -- I mean, if any one of
19 you, if you want to come, we'll put you on a
20 flight, and we'll show you -- and you can come
21 unannounced. You don't even have to -- you can
22 quote me, and I'll not make any announcement.

23 That's the other thing. Most of
24 you have never been on that flight. Some of you
25 have. You'll see me fly the exact same route, at

1 Thank you.

2 MS. HALL: Okay. Thank you all
3 much. Thank you very much for coming. We really
4 appreciate it.

5 (Public meeting concluded at
6 9:30 p.m.)
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CERTIFICATE

STATE OF ALASKA)

) Ss.

FIRST JUDICIAL DISTRICT)

I, LYNDA BATCHELOR, Registered Diplomat
Reporter and Notary Public duly commissioned and
qualified in and for the State of Alaska, do hereby
certify that the foregoing proceedings were taken
stenographically before me and thereafter reduced to
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That the foregoing transcript is a full, true
and correct transcript of the proceedings, including
questions, answers, objections, statements, motions
and exceptions made and taken at the time of the
foregoing proceedings.

That all documents and/or things requested to
be included with the transcript of the proceedings
have been annexed to and included with said
proceedings.

That I am not a relative or employee or
attorney or counsel of any of the parties in these
proceedings, nor a relative or employee of such
attorney or counsel, and that I am not financially
interested in said proceedings or the outcome
thereof.

IN WITNESS WHEREOF, I have set my hand and
affixed my Notarial Seal this 15th day of September,
2001.

LYNDA BATCHELOR, RDR,
Notary Public for Alaska
My commission expires: 5/20/04

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